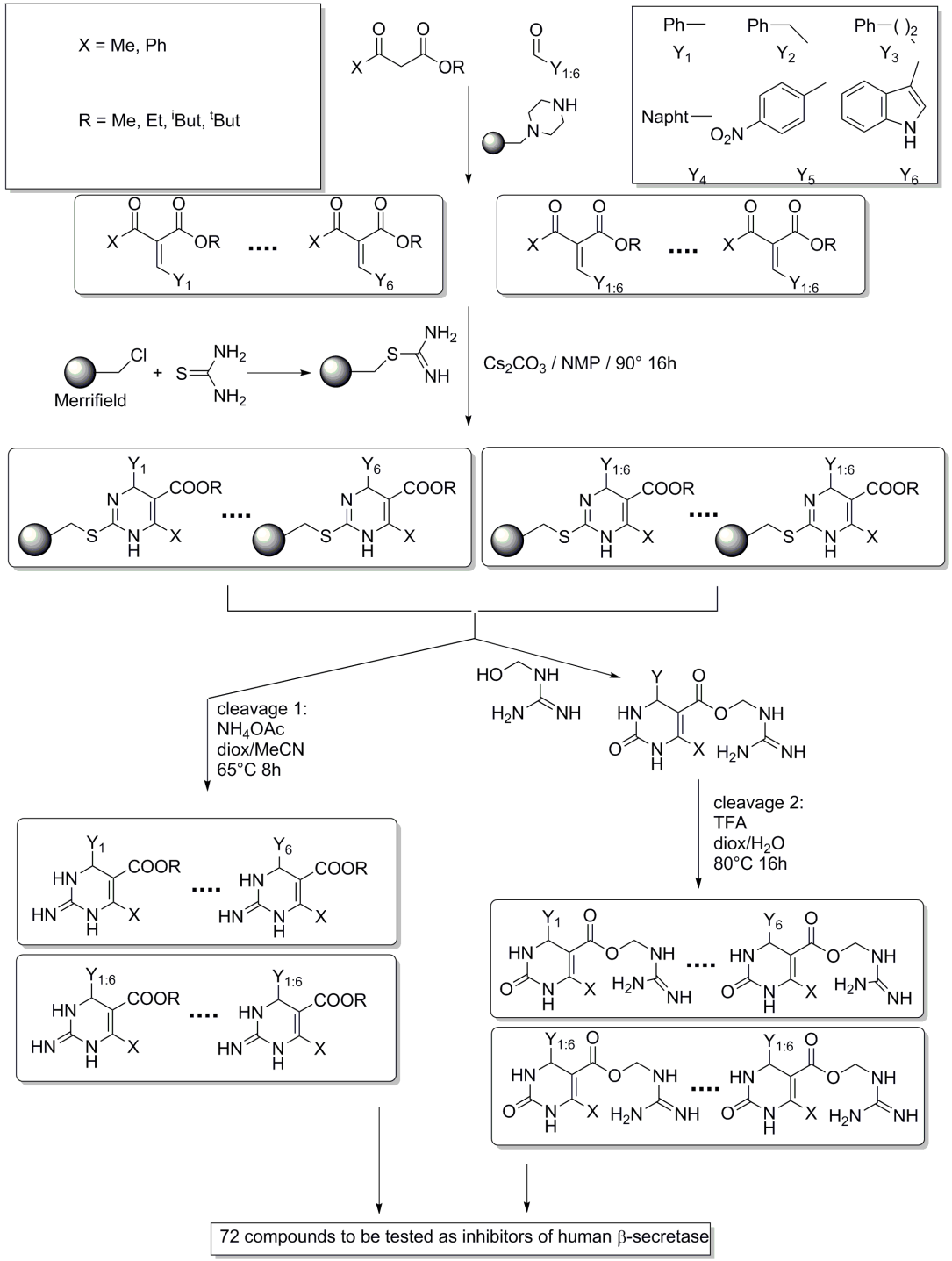
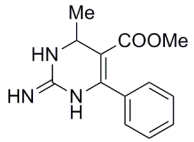
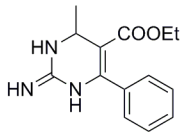
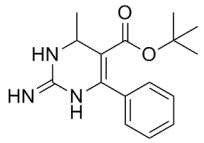
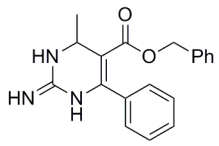
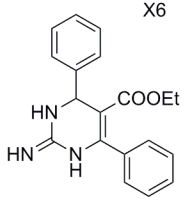
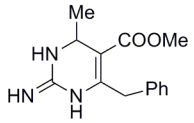
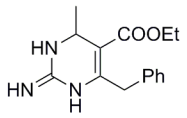
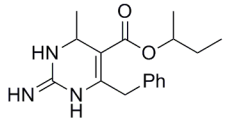
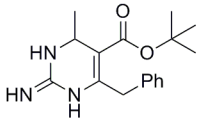
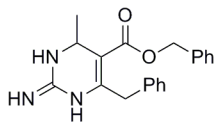
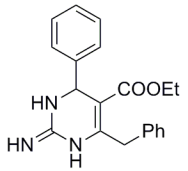
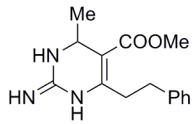
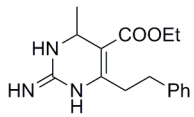
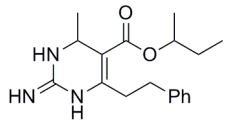
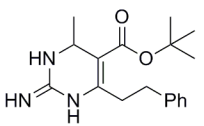
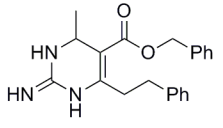
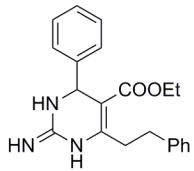
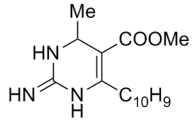
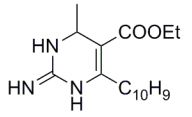
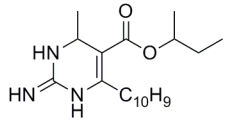
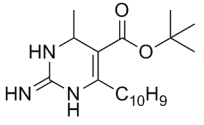
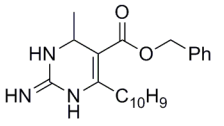
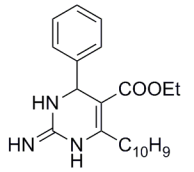
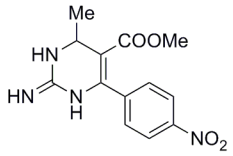
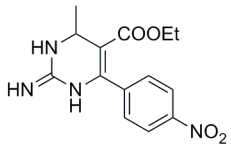
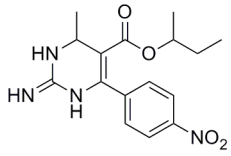
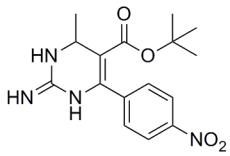
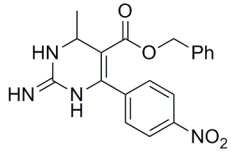
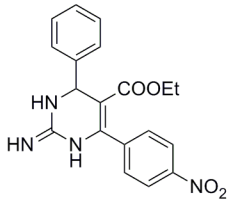
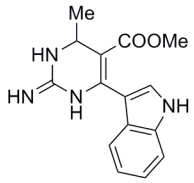
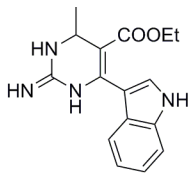
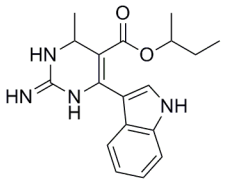
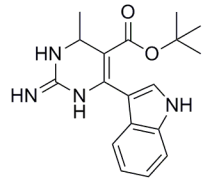
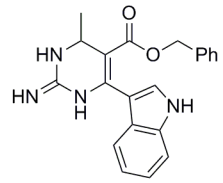
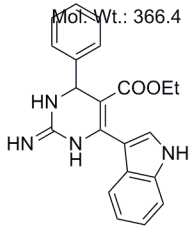

X = Me, Ph
R = Me, Et, iBut, tBut
Merrifield
Cs2CO3 / NMP / 90° 16h
cleavage 1:
NH4OAc
diox/MeCN
65°C 8h
cleavage 2:
TFA
diox/H2O
80°C 16h
72 compounds to be tested as inhibitors of human β-secretase

	X1	X2	X3	X4	X5	X6
Y1	 Mol. Wt.: 245.3	 Mol. Wt.: 259.3	 Mol. Wt.: 287.4	 Mol. Wt.: 287.4	 Mol. Wt.: 321.4	 Mol. Wt.: 321.4
Y2	 Mol. Wt.: 259.3	 Mol. Wt.: 273.3	 Mol. Wt.: 301.4	 Mol. Wt.: 301.4	 Mol. Wt.: 335.4	 Mol. Wt.: 335.4
Y3	 Mol. Wt.: 273.3	 Mol. Wt.: 287.4	 Mol. Wt.: 315.4	 Mol. Wt.: 315.4	 Mol. Wt.: 349.4	 Mol. Wt.: 349.4
Y4	 Mol. Wt.: 295.3	 Mol. Wt.: 309.4	 Mol. Wt.: 337.4	 Mol. Wt.: 337.4	 Mol. Wt.: 371.4	 Mol. Wt.: 371.4
Y5	 Mol. Wt.: 290.3	 Mol. Wt.: 304.3	 Mol. Wt.: 332.4	 Mol. Wt.: 332.4	 Mol. Wt.: 366.4	 Mol. Wt.: 366.4
Y6	 Mol. Wt.: 284.3	 Mol. Wt.: 298.3	 Mol. Wt.: 326.4	 Mol. Wt.: 326.4	 Mol. Wt.: 360.4	 Mol. Wt.: 360.4

I reagenti a disposizione si trovano sul primo banco del laboratorio. Ciascuna libreria dovrà contenere 8 μmoli di ciascun prodotto

B1334 SIGMA-ALDRICH

Benzaldehyde

ReagentPlus®, ≥99%

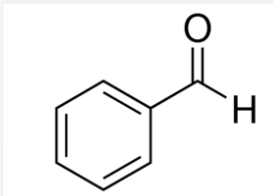
Synonym: Bitter almond

MSDS | SIMILAR PRODUCTS

CAS Number 100-52-7 | Linear Formula C_6H_5CHO | Molecular Weight 106.12 | Beilstein Registry Number 471223

EC Number 202-860-4 | MDL number MFCD00003299 | PubChem Substance ID 24891583 | eCl@ss 39023701

POPULAR DOCUMENTS: SPECIFICATION SHEET (PDF)



107395 ALDRICH

Phenylacetaldehyde

≥90%

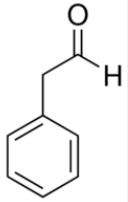
Synonym: α-Tolylaldehyde

MSDS | SIMILAR PRODUCTS

CAS Number 122-78-1 | Linear Formula $C_6H_5CH_2CHO$ | Molecular Weight 120.15

Beilstein Registry Number 385791 | EC Number 204-574-5 | MDL number MFCD00006993

PubChem Substance ID 24846766 | eCl@ss 39023706



W288705 ALDRICH

Hydrocinnamaldehyde

≥95%, FG, FCC

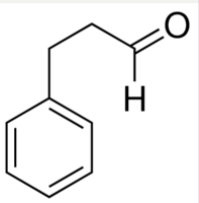
Synonym: 3-Phenylpropionaldehyde

MSDS | SIMILAR PRODUCTS

CAS Number 104-53-0 | Linear Formula $C_6H_5CH_2CH_2CHO$ | Molecular Weight 134.18

Beilstein Registry Number 1071910 | Council of Europe no. 2013 | EC Number 203-211-8 | FEMA Number 2887

Flavis number 5.080 | MDL number MFCD00007021 | PubChem Substance ID 24901375



N109 ALDRICH

1-Naphthaldehyde

95%

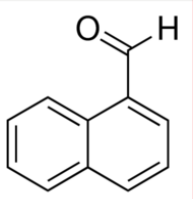
Synonym: α-Naphthaldehyde

SDS | SIMILAR PRODUCTS

CAS Number 66-77-3 | Linear Formula $C_{10}H_7CHO$ | Molecular Weight 156.18 | Beilstein Registry Number 386082

EC Number 200-633-4 | MDL number MFCD00004003 | PubChem Substance ID 24897459

POPULAR DOCUMENTS: SPECIFICATION SHEET (PDF) | FTNMR (PDF)



130776 ALDRICH

4-Nitrobenzaldehyde

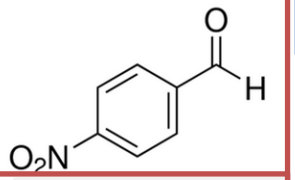
98%

MSDS | SIMILAR PRODUCTS

CAS Number 555-16-8 | Linear Formula $O_2NC_6H_4CHO$ | Molecular Weight 151.12

Beilstein Registry Number 386796 | EC Number 209-084-5 | MDL number MFCD00007346

PubChem Substance ID 24847946



129445 ALDRICH

Indole-3-carboxaldehyde

97%

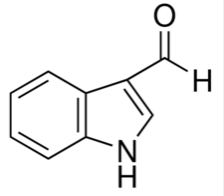
Synonym: β-Indolylaldehyde, 3-Indolylformaldehyde, 3-Formylindole, Indole-3-carbaldehyde, NSC 10118

MSDS | SIMILAR PRODUCTS

CAS Number 487-89-8 | Empirical Formula (Hill Notation) C_9H_7NO | Molecular Weight 145.16

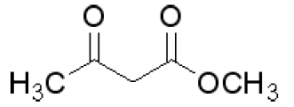
Beilstein Registry Number 114117 | EC Number 207-665-8 | MDL number MFCD00005622

PubChem Substance ID 24847903



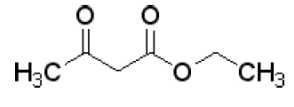
Product Name:
Methyl acetoacetate – ReagentPlus®, 99%

Product Number:	**537365**
CAS Number:	105-45-3
MDL:	MFCD00008784
Formula:	C5H8O3
Formula Weight:	116.12 g/mol



Product Name:
Ethyl acetoacetate – ≥99%, FCC

Product Number:	**W241504**
CAS Number:	141-97-9
MDL:	MFCD00009199
Formula:	C6H10O3
Formula Weight:	130.14 g/mol



00483 ALDRICH

Isobutyl acetoacetate

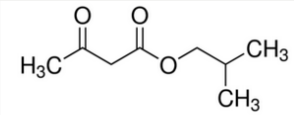
≥98.0% (GC)

MSDS | SIMILAR PRODUCTS

CAS Number 7779-75-1 | Linear Formula $CH_3COCH_2COOCH_2CH(CH_3)_2$ | Molecular Weight 158.19

Beilstein Registry Number 1761405 | EC Number 231-937-5 | MDL number MFCD00059349

PubChem Substance ID 24845044 | eCl@ss 39022304



537594 ALDRICH

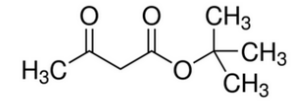
tert-Butyl acetoacetate

reagent grade, 98%

Synonym: TBAA

MSDS | SIMILAR PRODUCTS

CAS Number 1694-31-1 | Linear Formula $CH_3COCH_2COOC(CH_3)_3$ | Molecular Weight 158.19



295892 ALDRICH

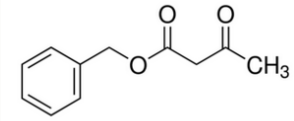
Benzyl acetoacetate

97%

Synonym: Acetoacetic acid benzyl ester

MSDS | SIMILAR PRODUCTS

CAS Number 5396-89-4 | Linear Formula $CH_3COCH_2COOCH_2C_6H_5$ | Molecular Weight 192.21



281492 ALDRICH

Ethyl benzoylacetate

technical grade, 90%

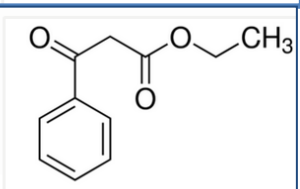
Synonym: Benzoylacetic acid ethyl ester, Ethyl 3-oxo-3-phenylpropionate

SDS | SIMILAR PRODUCTS

CAS Number 94-02-0 | Linear Formula $C_6H_5COCH_2COOC_2H_5$ | Molecular Weight 192.21

Beilstein Registry Number 389944 | EC Number 202-295-3 | MDL number MFCD00009196

PubChem Substance ID 24856975



T8656 SIGMA-ALDRICH

Thiourea

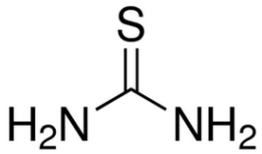
ACS reagent, ≥99.0%

Synonym: Sulfourea, Thiocarbamide

MSDS | SIMILAR PRODUCTS

CAS Number 62-56-6 | Linear Formula NH_2CSNH_2 | Molecular Weight 76.12 | Beilstein Registry Number 605327

EC Number 200-543-5 | MDL number MFCD00008067 | PubChem Substance ID 24900549



441902 ALDRICH

Cesium carbonate

ReagentPlus®, 99%

Synonym: Carbonic acid dicesium

MSDS | SIMILAR PRODUCTS

CAS Number 534-17-8 | Linear Formula Cs_2CO_3 | Molecular Weight 325.82 | Beilstein Registry Number 4546405

EC Number 208-591-9 | MDL number MFCD00010957 | PubChem Substance ID 24867711

Cs_2CO_3

P45907 SIGMA-ALDRICH

Piperazine

ReagentPlus®, 99%

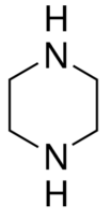
Synonym: 1,4-Diazacyclohexane, Diethylenediamine

MSDS | SIMILAR PRODUCTS

CAS Number 110-85-0 | Empirical Formula (Hill Notation) $C_4H_{10}N_2$ | Molecular Weight 86.14

Beilstein Registry Number 102555 | EC Number 203-808-3 | MDL number MFCD00005953

PubChem Substance ID 24898556 | eCl@ss 39160301



Merrifield resin load: 1.23 mmol/g

Attività	Temperatura	Durata	Carico	Workup	Chi
Loading della tiourea	70°C	16h	Venerdi 7/10	Lunedi 10/10	Tutti i gruppi
Reazioni di Knoevenagel	riflusso EtOH	2h	Lunedi 10/10	Lunedi 10/10	G1:X1,X2,X3. G2: X4,X5,X6. G3: Y1,Y2,Y3; G4: Y4,Y5,Y6.
Reazioni di Biginelli	90°C	16h	Martedi 11/10	Mercoledi 12/10	
Distacco in ammoniaca	riflusso acetonitrile	8h	Mercoledi 12/10	Mercoledi 12/10	
Introduzione alle misure di attività: mercoledi 12/10					
Misure di attività: giovedi 13/10 e date da concordare					

Immobilizzazione della tiourea

Pergamon

Bioorganic & Medicinal Chemistry Letters 10 (2000) 49–51

BIOORGANIC & MEDICINAL CHEMISTRY LETTERS

Highly Versatile Solid Phase Synthesis of Biofunctional 4-Aryl-3,4-dihydropyrimidines Using Resin-Bound Isothiourea Building Blocks and Multidirectional Resin Cleavage†

C. Oliver Kappe*

24. Typical procedure: A mixture of resin bound 4-(benzyloxy)-benzyl chloride (**4**, 500 mg, 1.10 meq/g, Fluka) and thiourea (200 mg, 2.63 mmol) in anhydrous NMP (5 mL) was heated at 75 °C for 16 h. The resin was successively washed with NMP (2×5 mL), THF (3×5 mL), MeOH (3×5 mL), and CH_2Cl_2 (3×5 mL), and subsequently dried under high vacuum for 10

La reazione verrà effettuata su 400 mg di resina

Reazioni di Knoevenagel

Pergamon

Tetrahedron Letters 40 (1999) 7031–7033

TETRAHEDRON LETTERS

New solid phase Knoevenagel catalyst

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‡ Aldehyde (1 mmol) and active methylene (1 mmol) were dissolved in ethanol (10 ml). Piperidine (1 drop) or the solid phase catalyst (50 mg) was added and the reaction mixture was refluxed for 2 h. Solid phase catalyst was removed by filtration and excess ethanol was removed under vacuum.

Ogni libreria conterrà 8 μmoli di ciascun composto (48 μmoli totali)
Si lavorerà comunque in un volume di 2 ml di solvente, e con 20 mg di catalizzatore.
Sarà necessario preparare soluzioni madri dei reagenti in etanolo.

Reazione di Biginelli

h. The resulting resin **5** was treated with NMP (5 mL), enone **3a** (218 mg, 1.00 mmol), and Cs_2CO_3 (260 mg, 0.80 mmol) at 90 °C for 16 h. The resin was washed with NMP (2×5 mL), MeOH (3×5 mL), H_2O (3×5 mL), MeOH (3×5 mL), and air-dried to give polymer-bound dihydropyrimidine **6a**. This

Distacco dalla resina

on Cl loading of **4**) in >95% purity (^1H NMR). A second batch of the resin bound dihydropyrimidine **6a** (see above) was treated with a mixture (cleavage condition C) of dioxane (4 mL), MeCN (4 mL) and NH_4OAc (385 mg, 5 mmol) at reflux temperature for 8 h. The hot mixture was filtered from the resin and evaporated in vacuo. Trituration with H_2O left