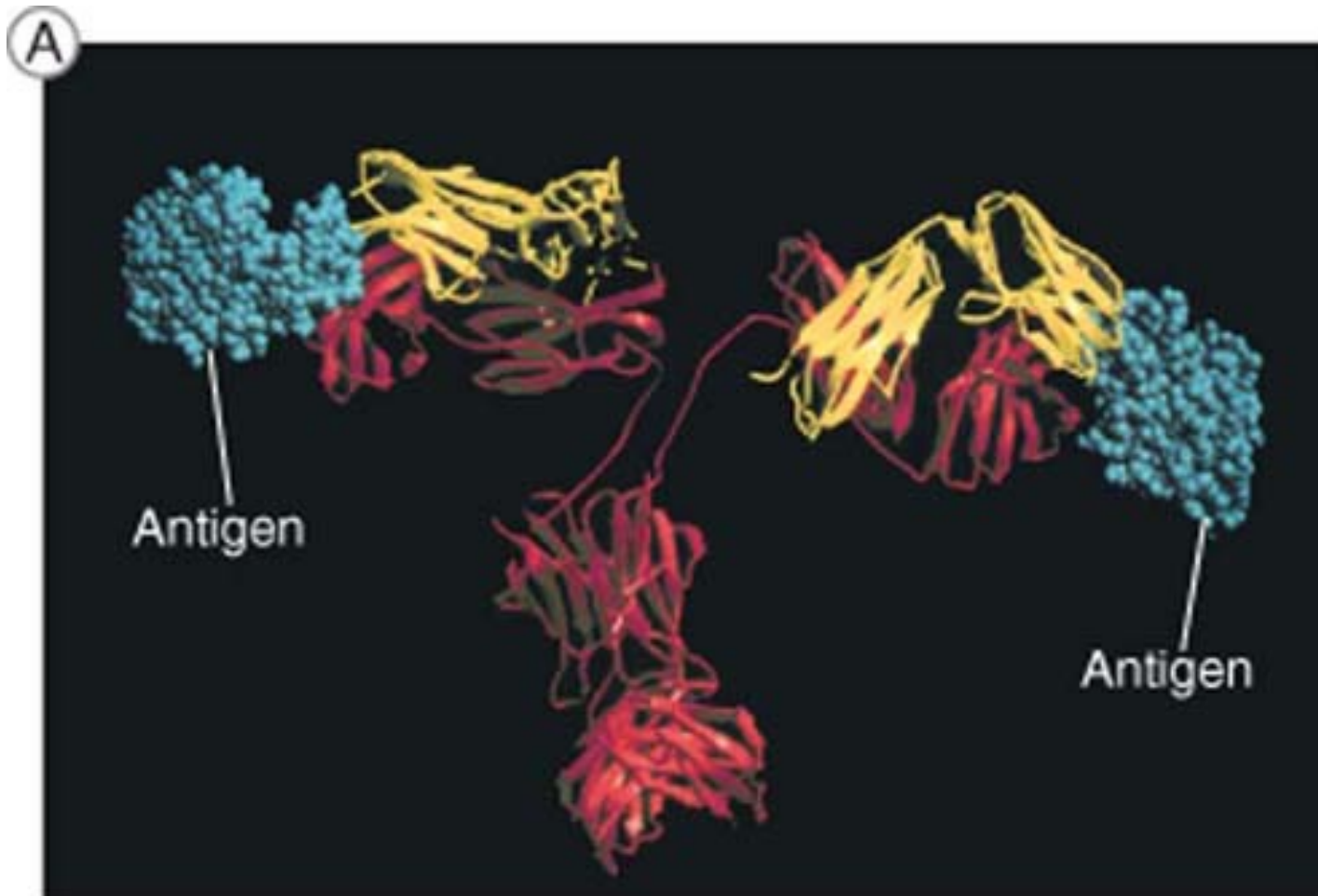


Antibodies

Antibody

An **antibody** (**Ab**), also known as an **immunoglobulin** (**Ig**), is a large, Y-shaped **protein** used by the **immune system** to identify and neutralize foreign objects such as **pathogenic bacteria** and **viruses**. The antibody recognizes a unique molecule of the pathogen, called an **antigen**. Each tip of the "Y" of an antibody contains a **paratope** (analogous to a lock) that is specific for one particular **epitope** (analogous to a key) on an antigen, allowing these two structures to bind together with precision.

Antigen/antibody complex



Antibody

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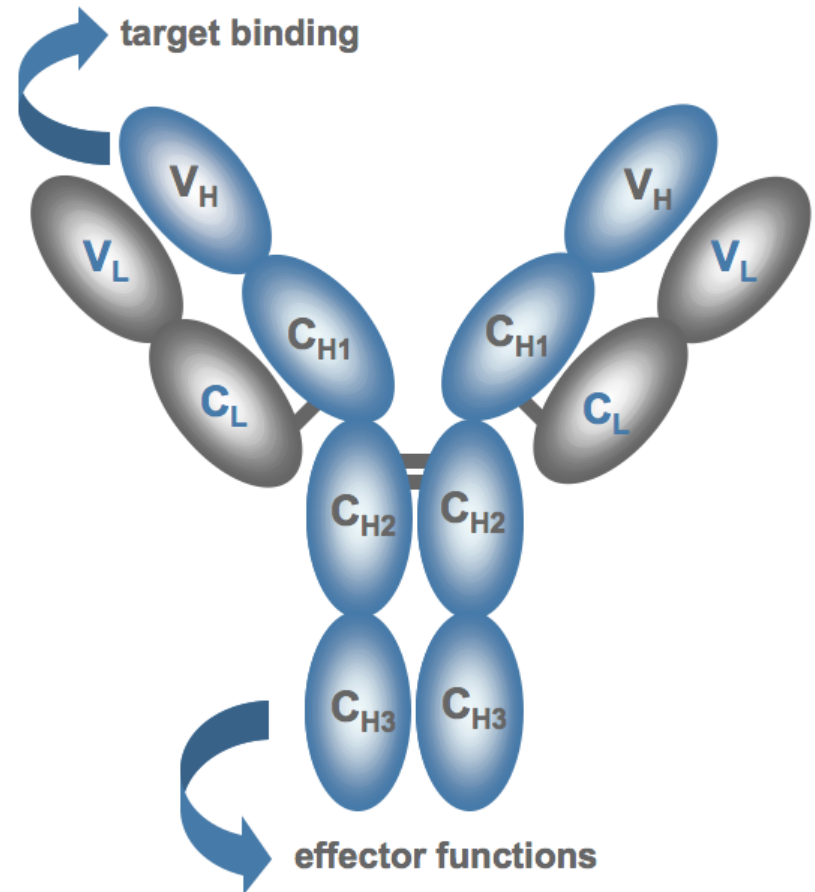
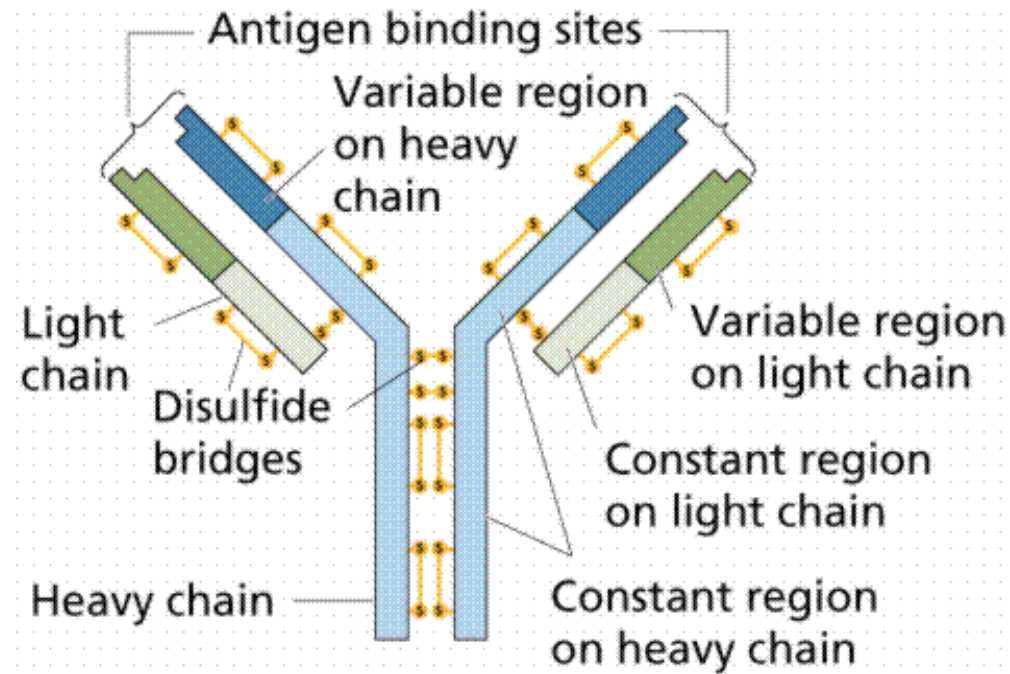
Wikipedia

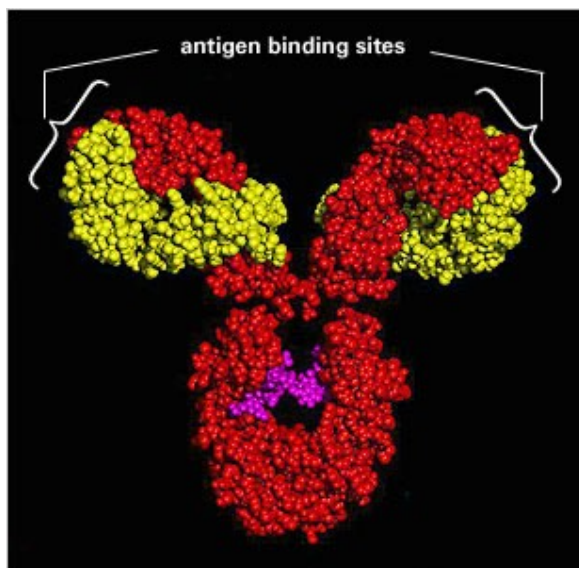
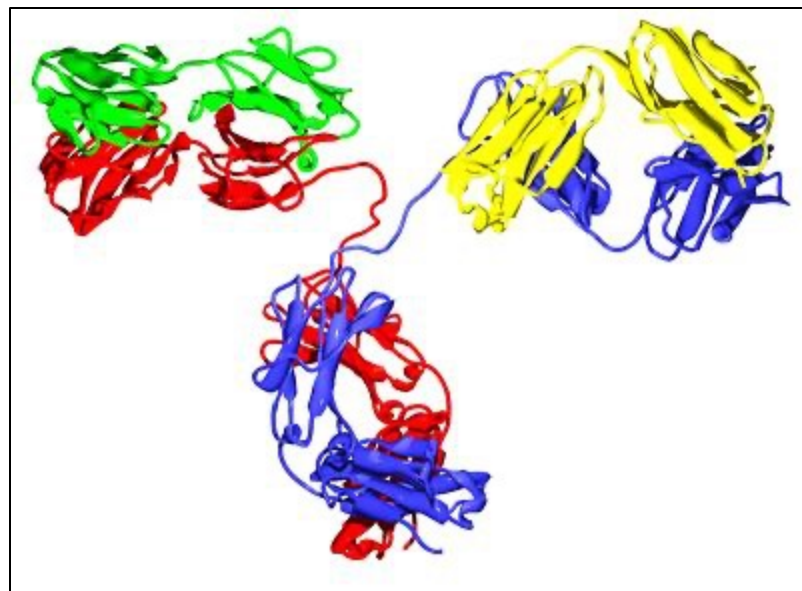
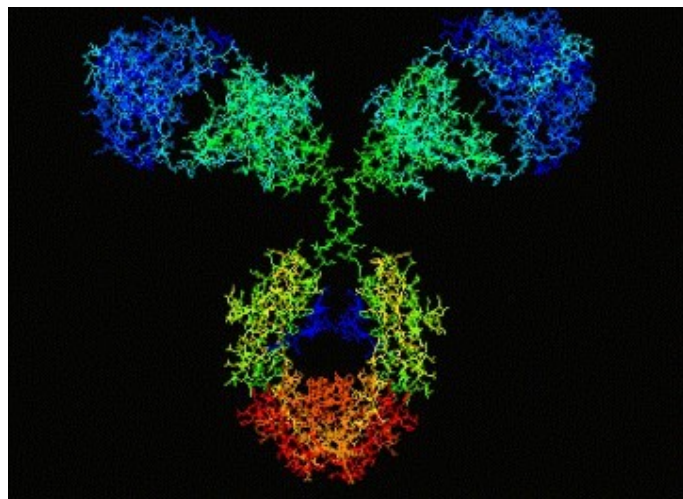
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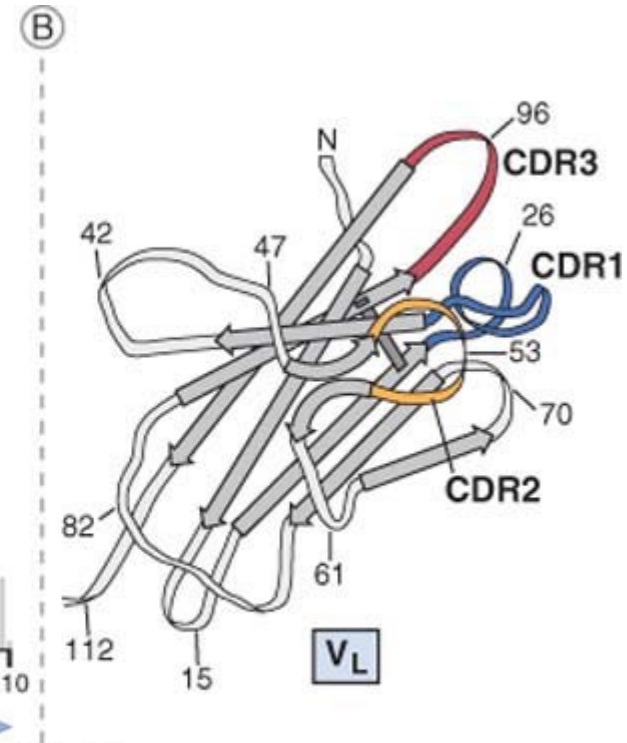
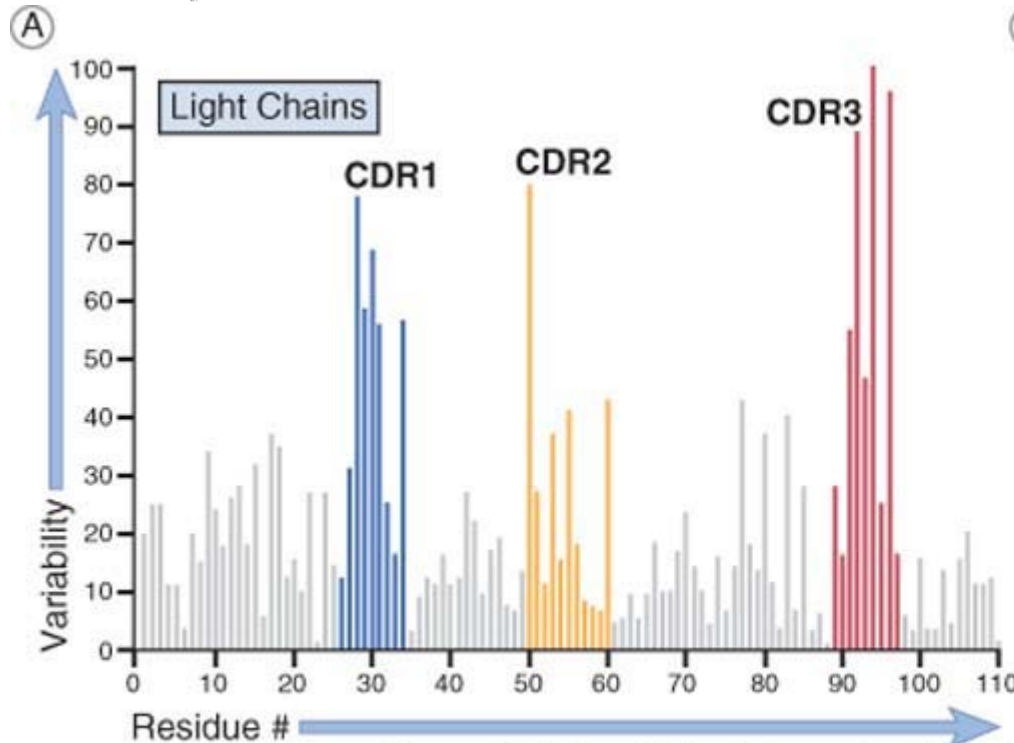
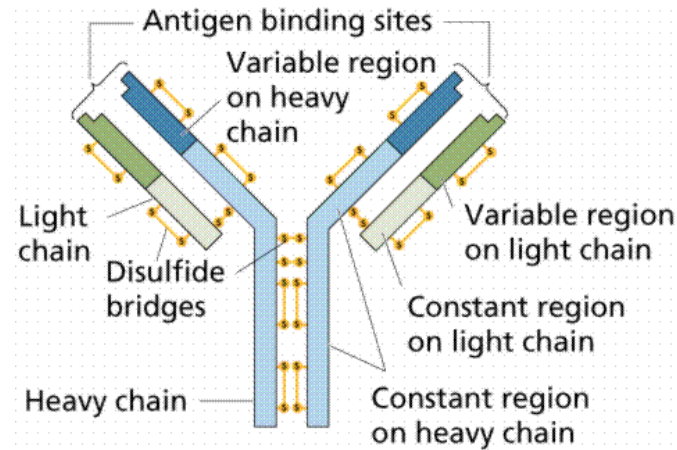
Wikipedia

Antibodies

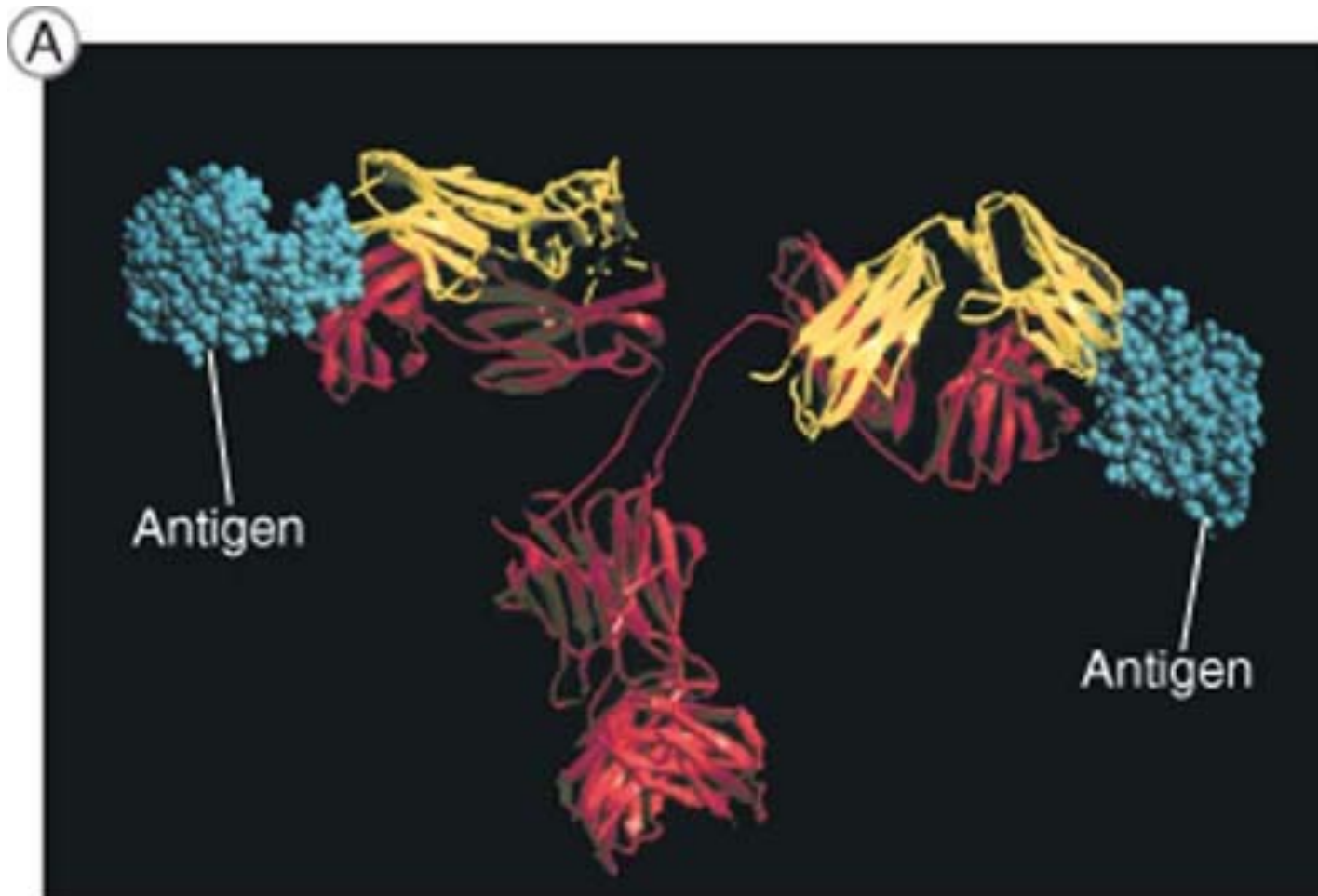




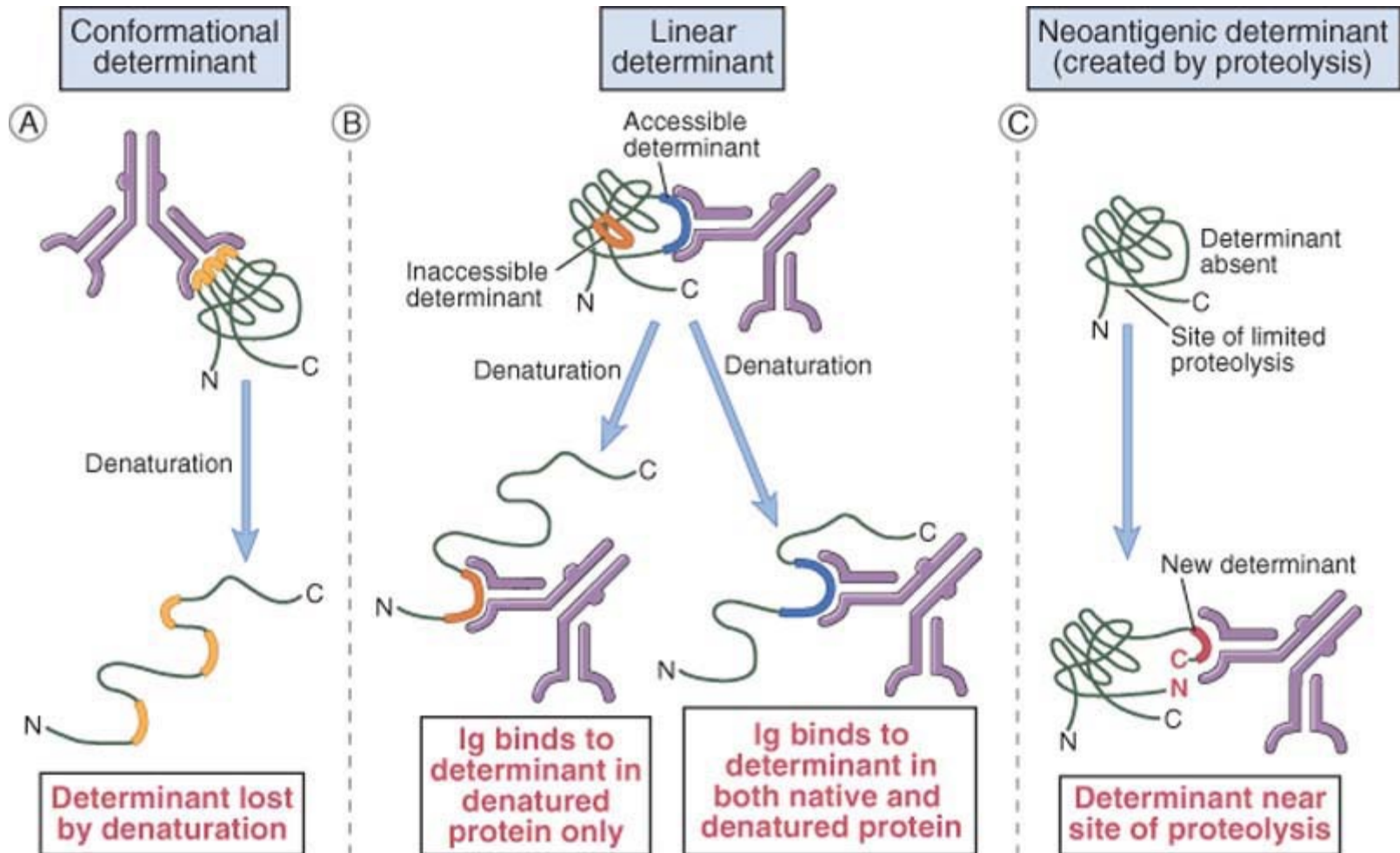
Aminoacid variability in antibody sequence



Antigen/antibody complex

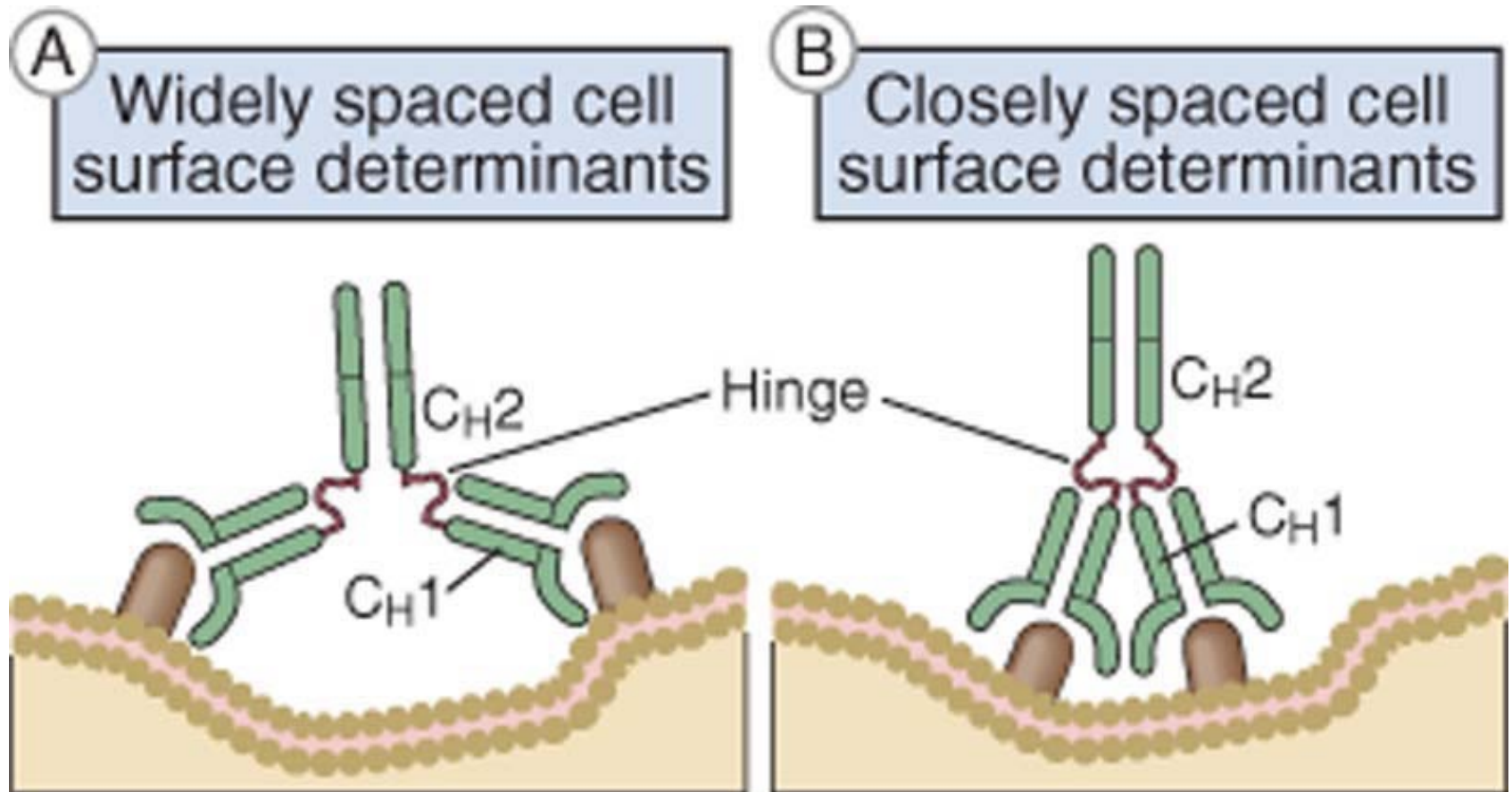


Antigenic determinant (epitope)

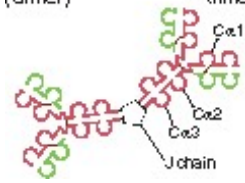
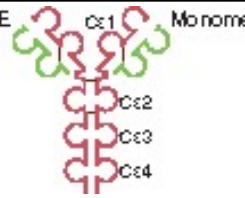
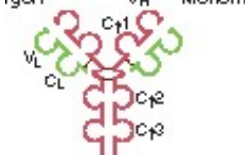
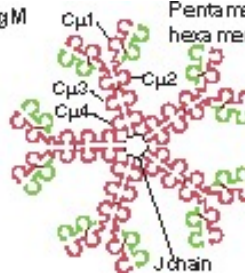


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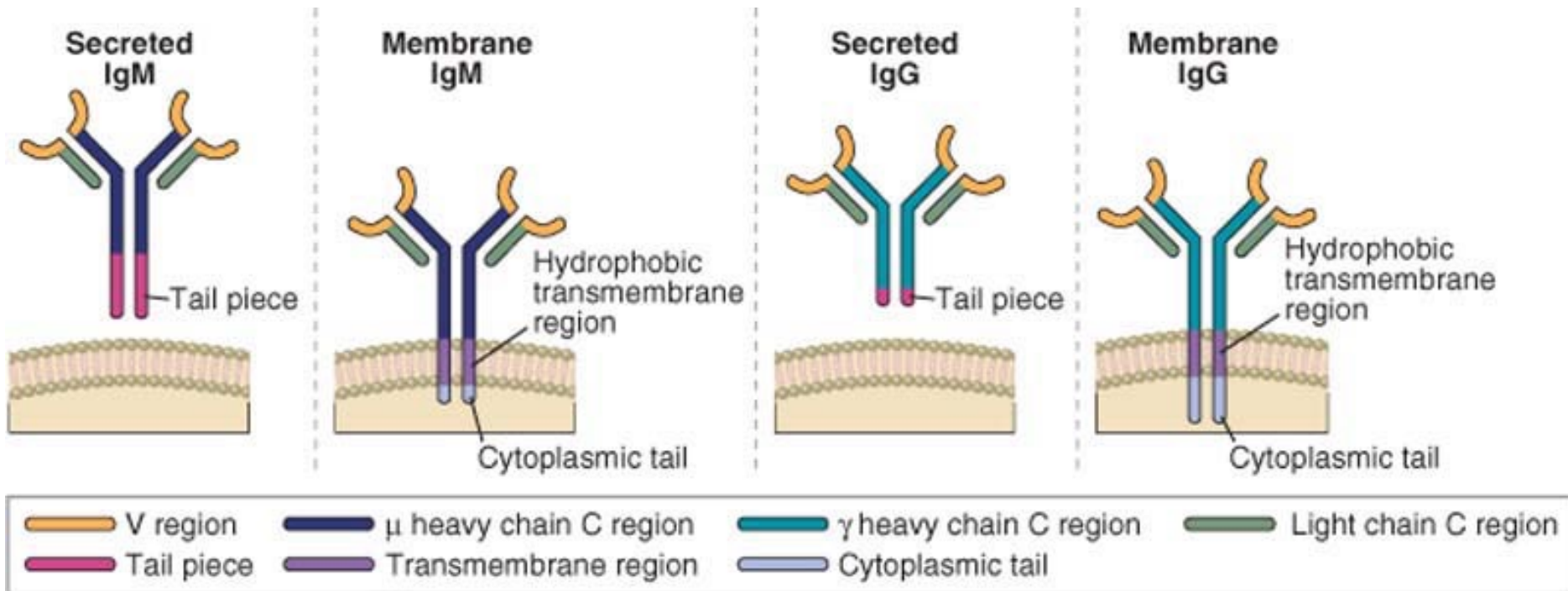
Antigen/antibody complex on cell membrane



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Type	Subtype	Serum concentration (mg/ml)	Serum Half-life (days)	Secreted form
IgA	1,2	3,5	6	IgA (dimer) Monomer, dimer, trimer 
IgD	-	-	3	-
IgE	-	0,05	2	IgE Monomer 
IgG	1-4	13,5	23	IgG1 Monomer 
IgM	-	1,5	5	IgM Pentamers, hexamers 

secreted and membrane antibodies



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