

B cell activation L3

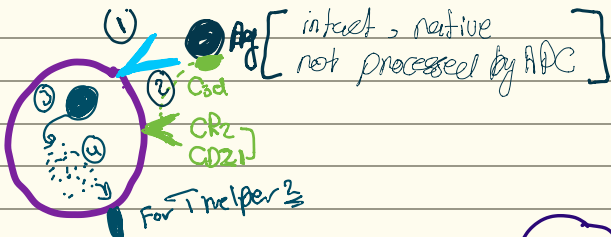
B₂ CD20⁺

Adaptive, T cell dependent

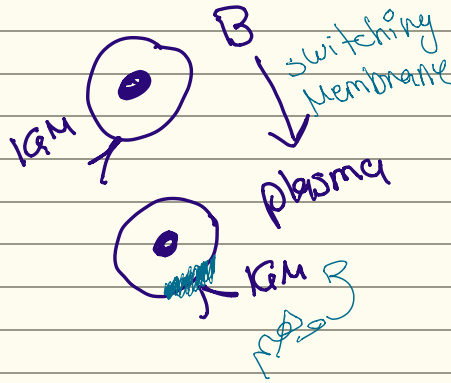
Protein → Ag no cluster

● one Epitopes, give memory

T cell ← \mathcal{E} L₂
To Activation



- increase expression
- MHCII, B7
- CD40R → needed
- For isotype switch
- cytokines Receptor.



B₁ CD5⁺

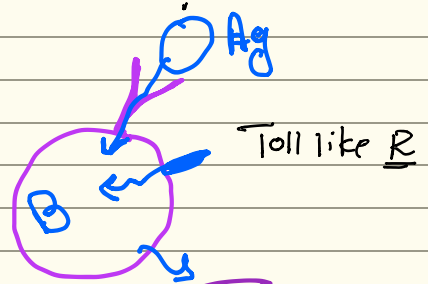
innate, T. indepen

Cluster of / Lipid, polysaccharide
B cell Receptor DNA → Ag

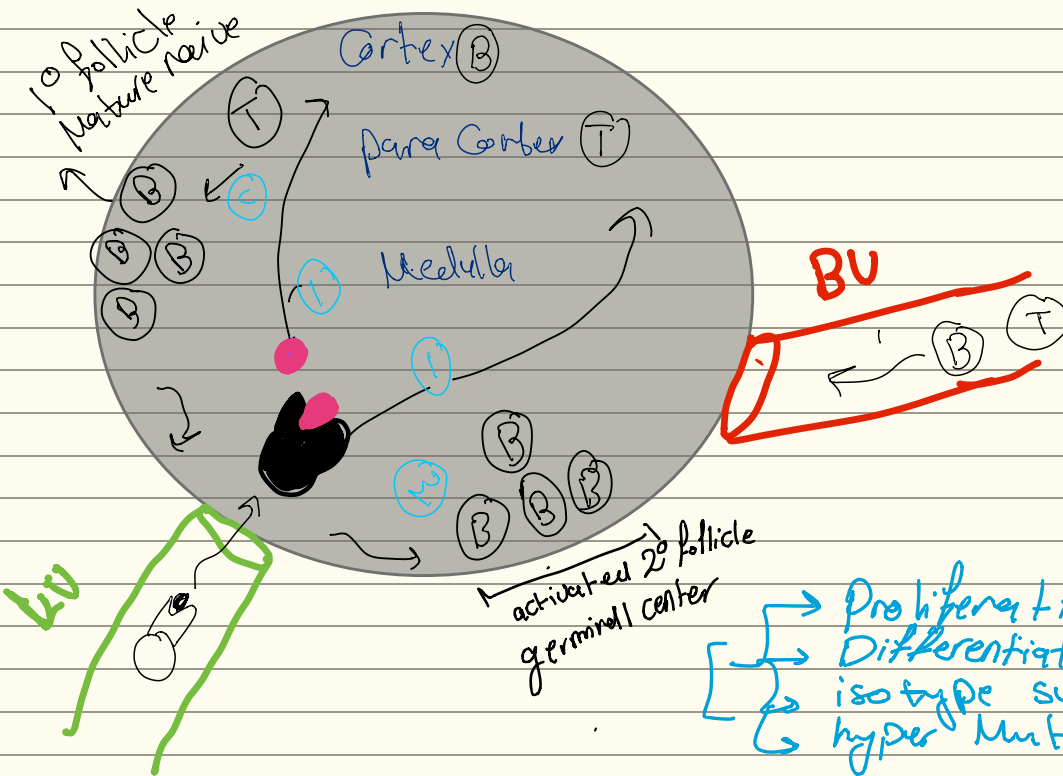
(more than 4 signal) ● multiple identical Epitopes to Activation

· naturally Found From Fetal

self-Renewing & Mucosal site & Peritoneum

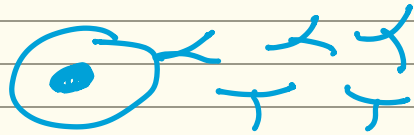


Plasma Cell X Short lived isotype switching X hyper mutation



* naive B cell Receptor IGM Formed by (Cμ to VDd of heavy chain) after activating → (isotype switching) CC, E, α notes - specific not altered (AID) enzyme.

Plasma cell



Short lived

- in 2° lymphoid organs
→ apoptosis

no CD20

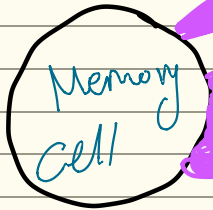


long lived

by T-dependent protein (Ag)

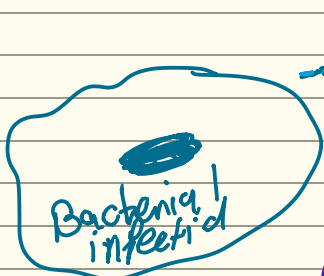
signal from BCR

- IL-21
even → stay in Medulla 2° LN
↳ Circulation → BM



CD27 (antiapoptotic)

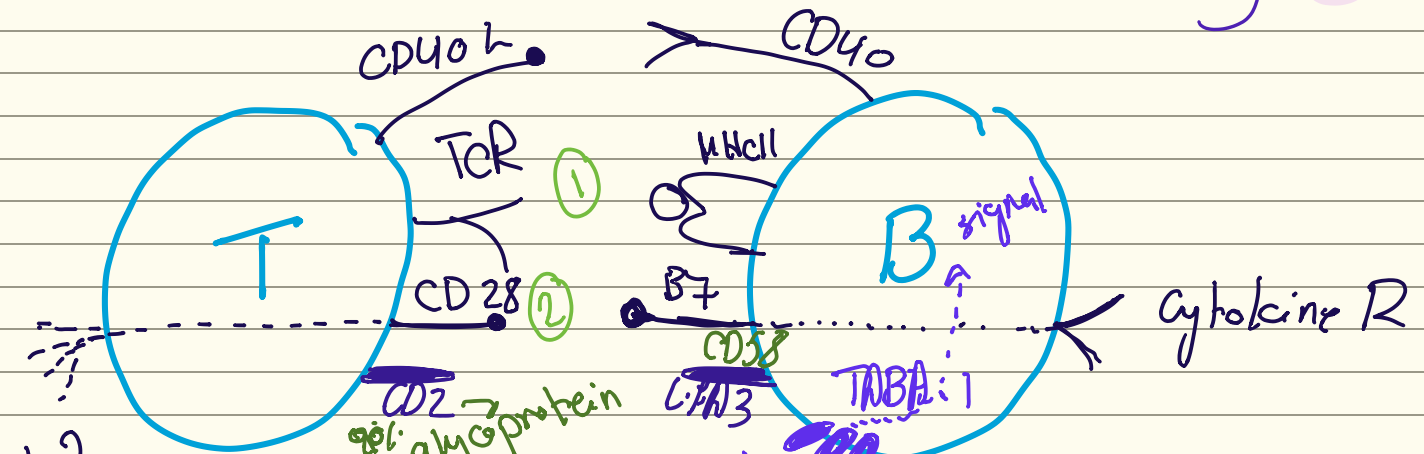
Bcl2



vaccine

↳ anti polysaccharide or daptom they will be T-independent → no memory

↳ bind the (Ab - protein) → T dependent (Conjugated vaccine) ✓ memory



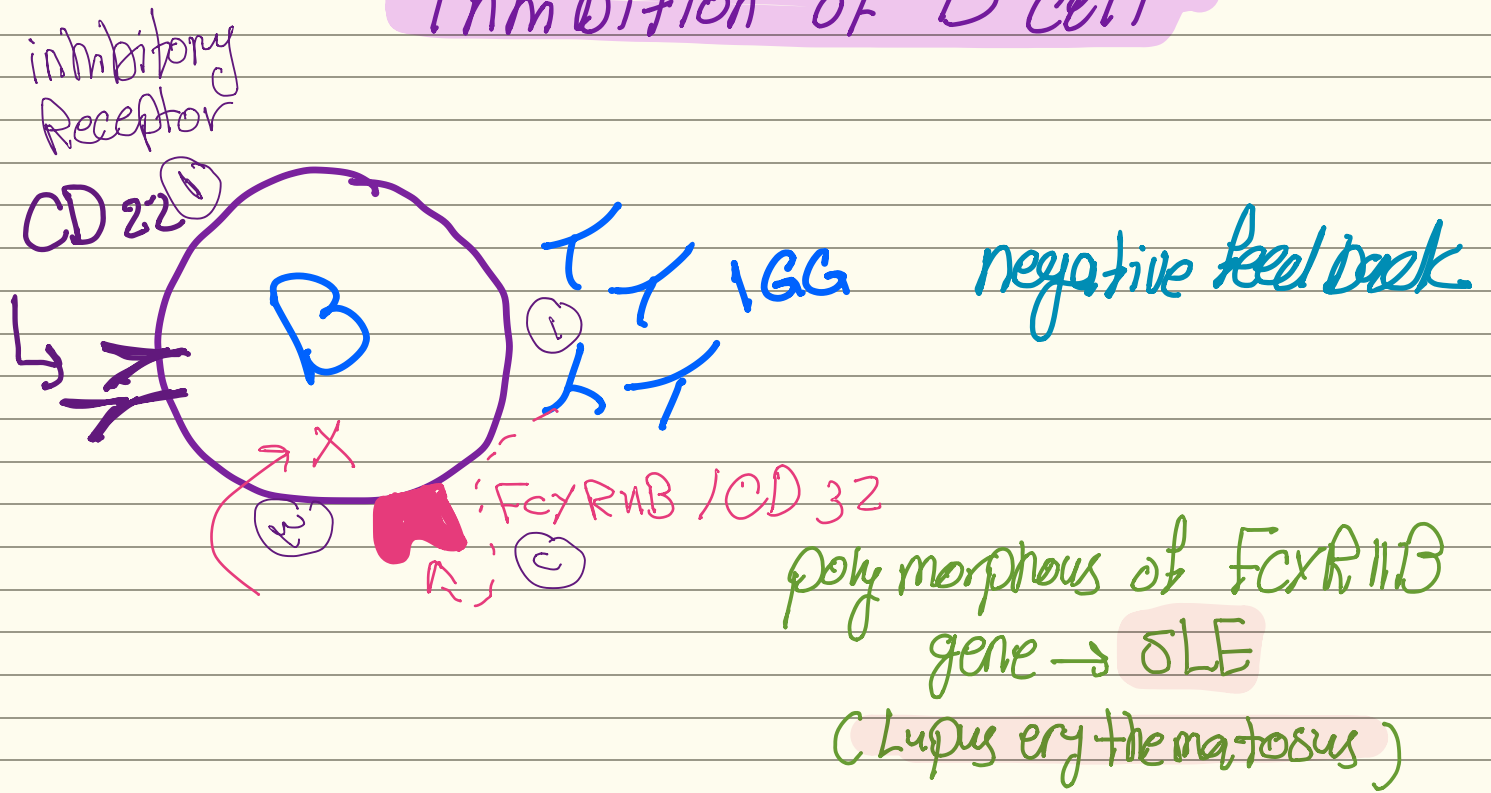
IL-2 help in proliferation of T cell

B cell Co. Receptor complex

CD28 / CD21 / CD19 / CD51 → stabilized

* if the Ag cleared CD28 → CTLA-4 T cell Death

Inhibition of B cell



T. Cell

CD40L

CD2

MHC1 / TCR

CD28

Bcell / APC

CD40

LFA.3 / CD58

MHCII / MHC1

B7