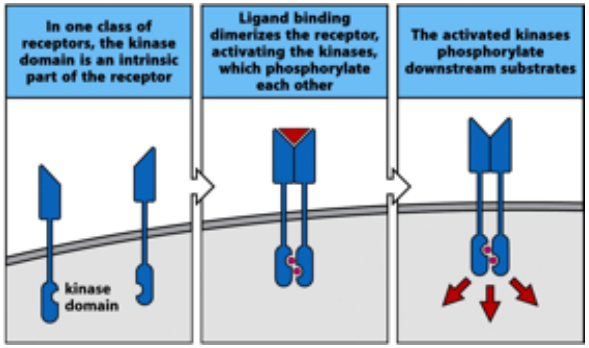
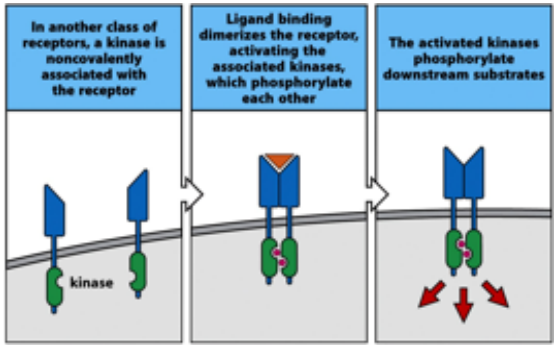
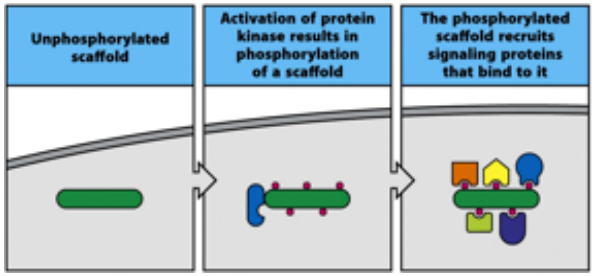
II- Cellules de l'immunité adaptative

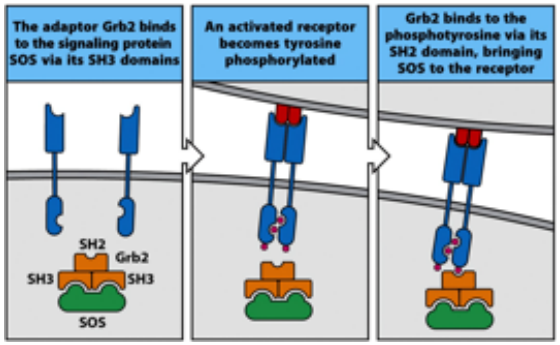
Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

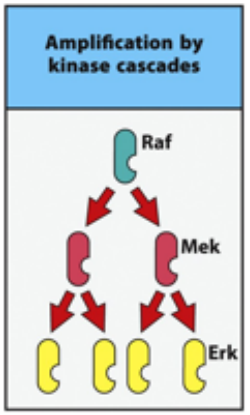
Rappels sur les principes de la signalisation cellulaire

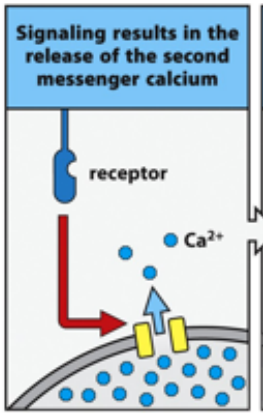


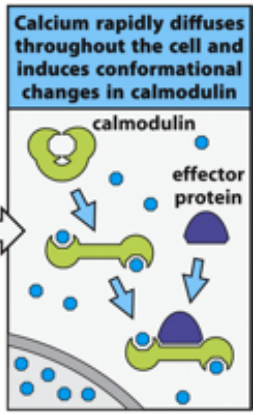


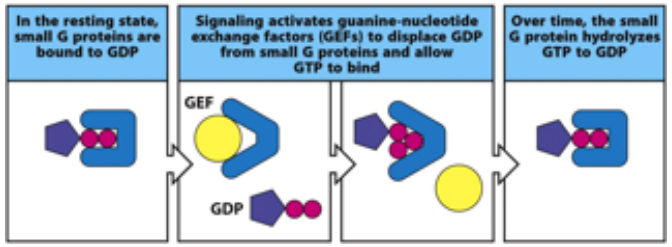


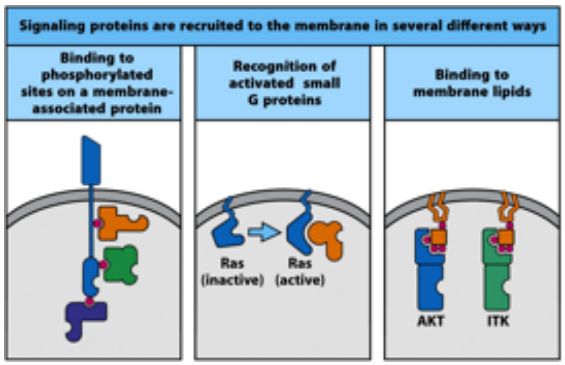












II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation

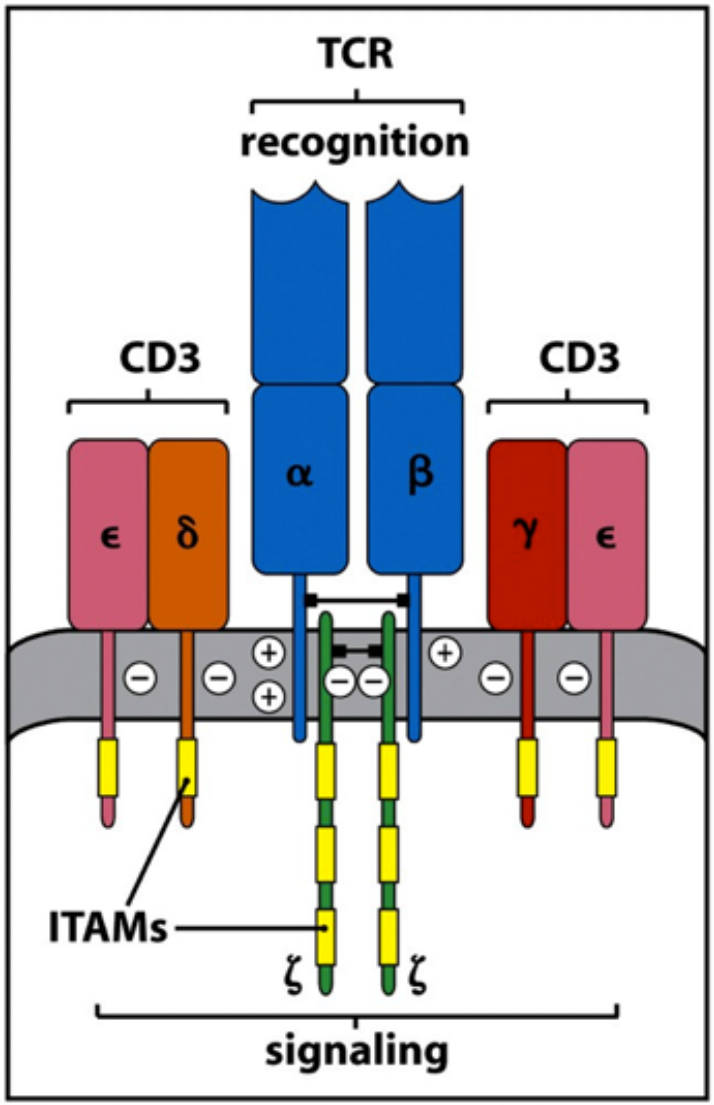


Figure 6-10 Immunobiology, 7ed. (© Garland Science 2008)

- ***ITAM*** *: immunoreceptor Tyrosine based Activation Motif*

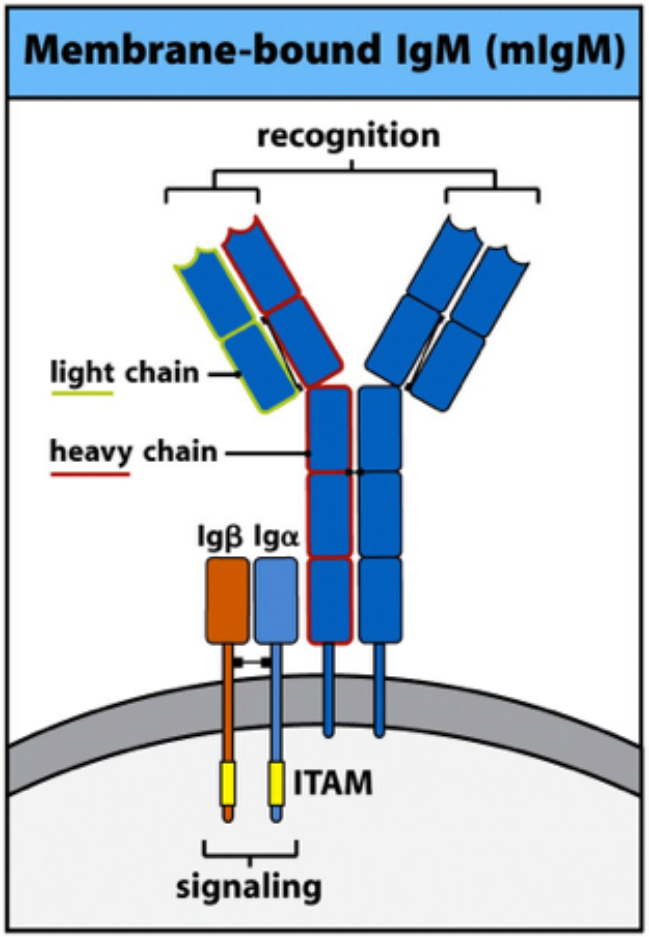


Figure 6-9 Immunobiology, 7ed. (© Garland Science 2008)

II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation

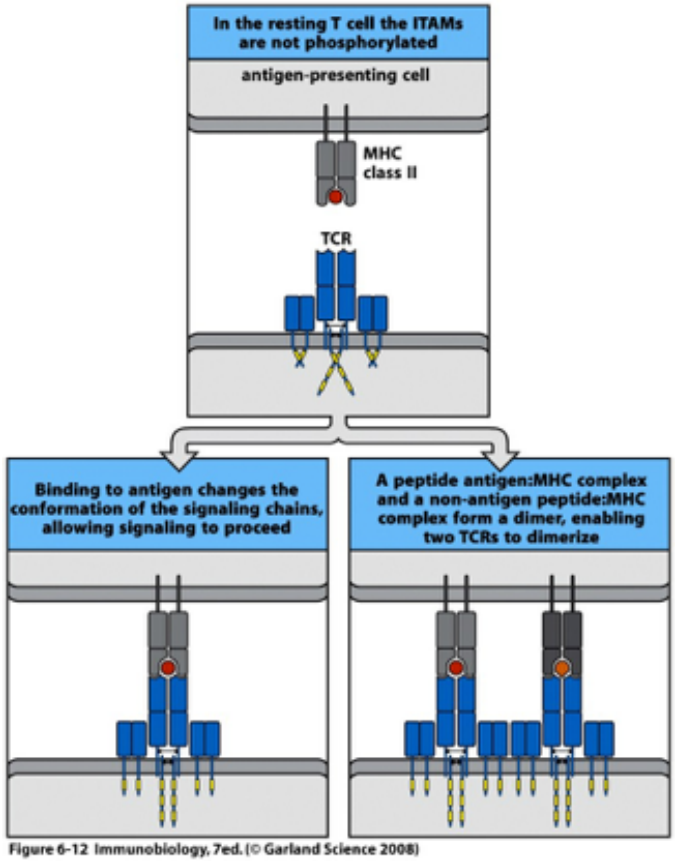


Figure 6-12 Immunobiology, 7ed. (© Garland Science 2008)

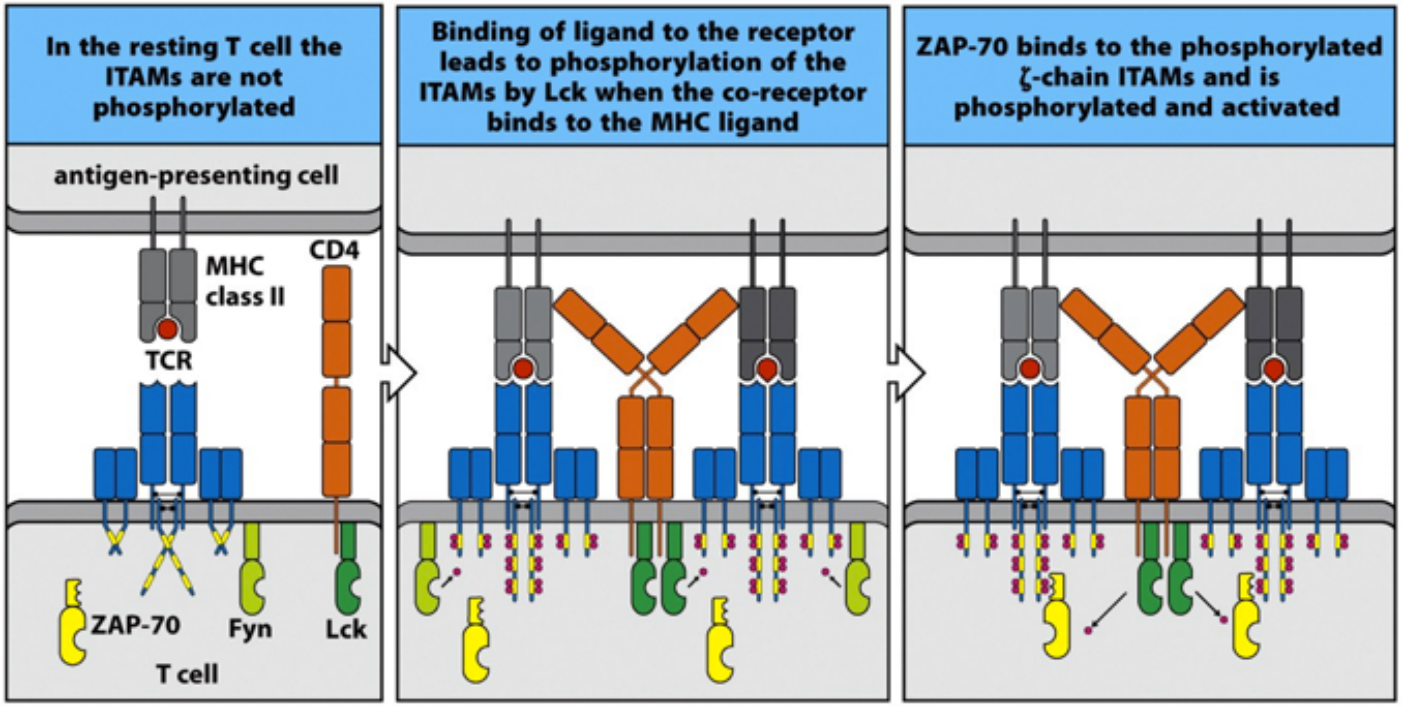


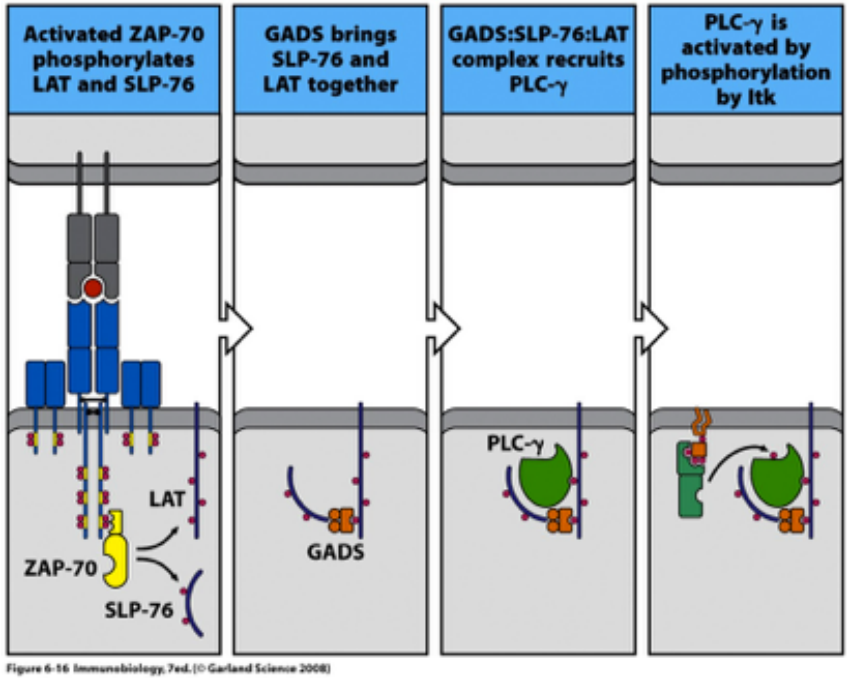
Figure 6-14 Immunobiology, 7ed. (© Garland Science 2008)

- ***ZAP-70*** *: Deux domaines SH2*

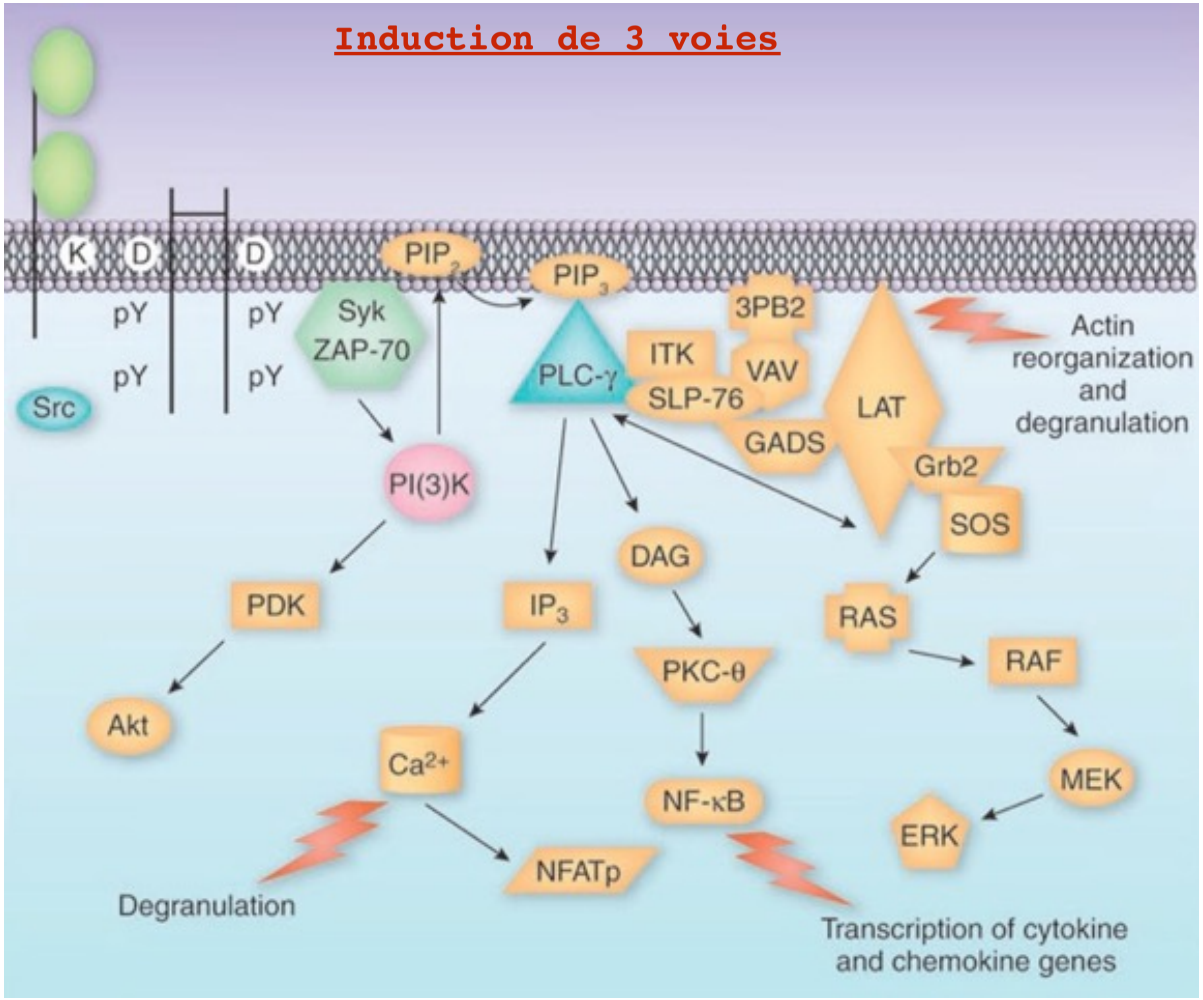
II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation



•*Activation de* ***PLCγ*** *par les membres de la famille* ***Tec (ITK)***



II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Voies de Signalisation déclenchées par l'activation du TCR

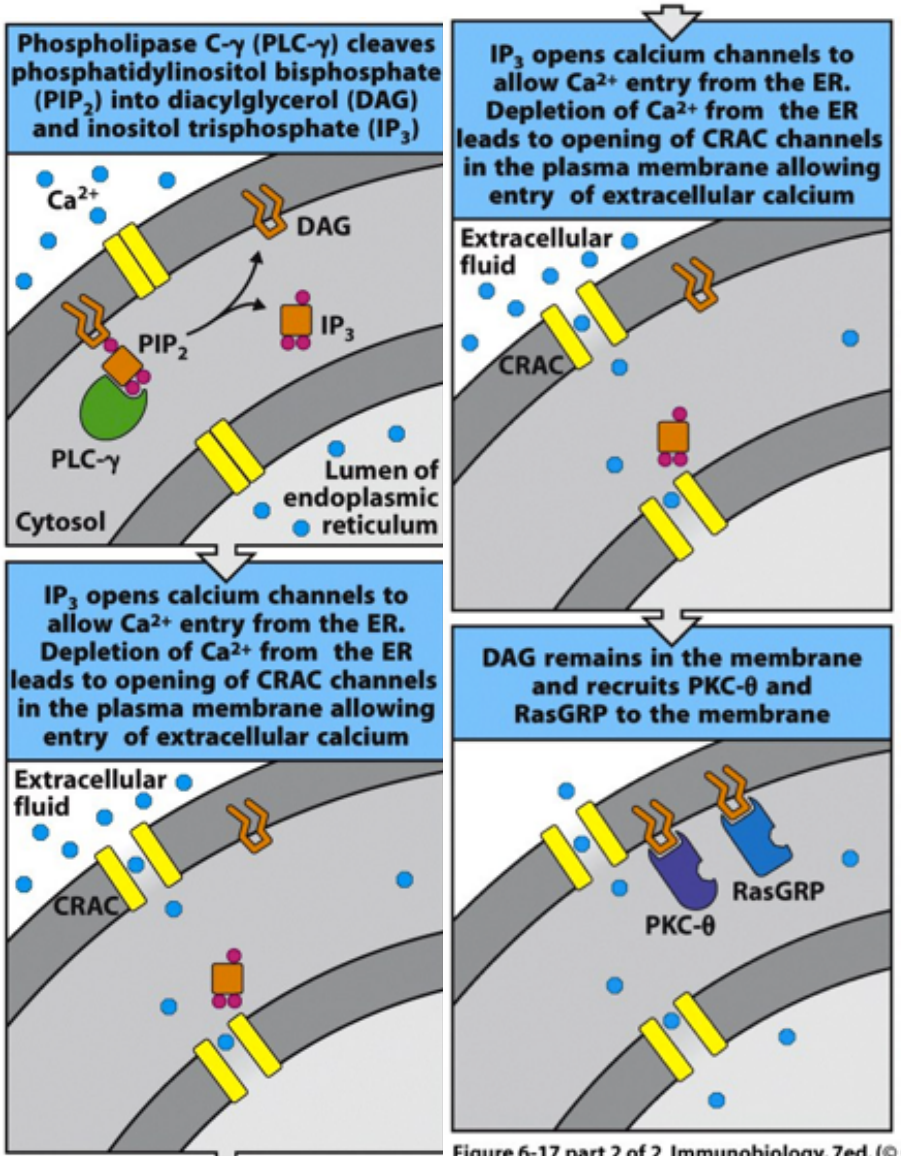
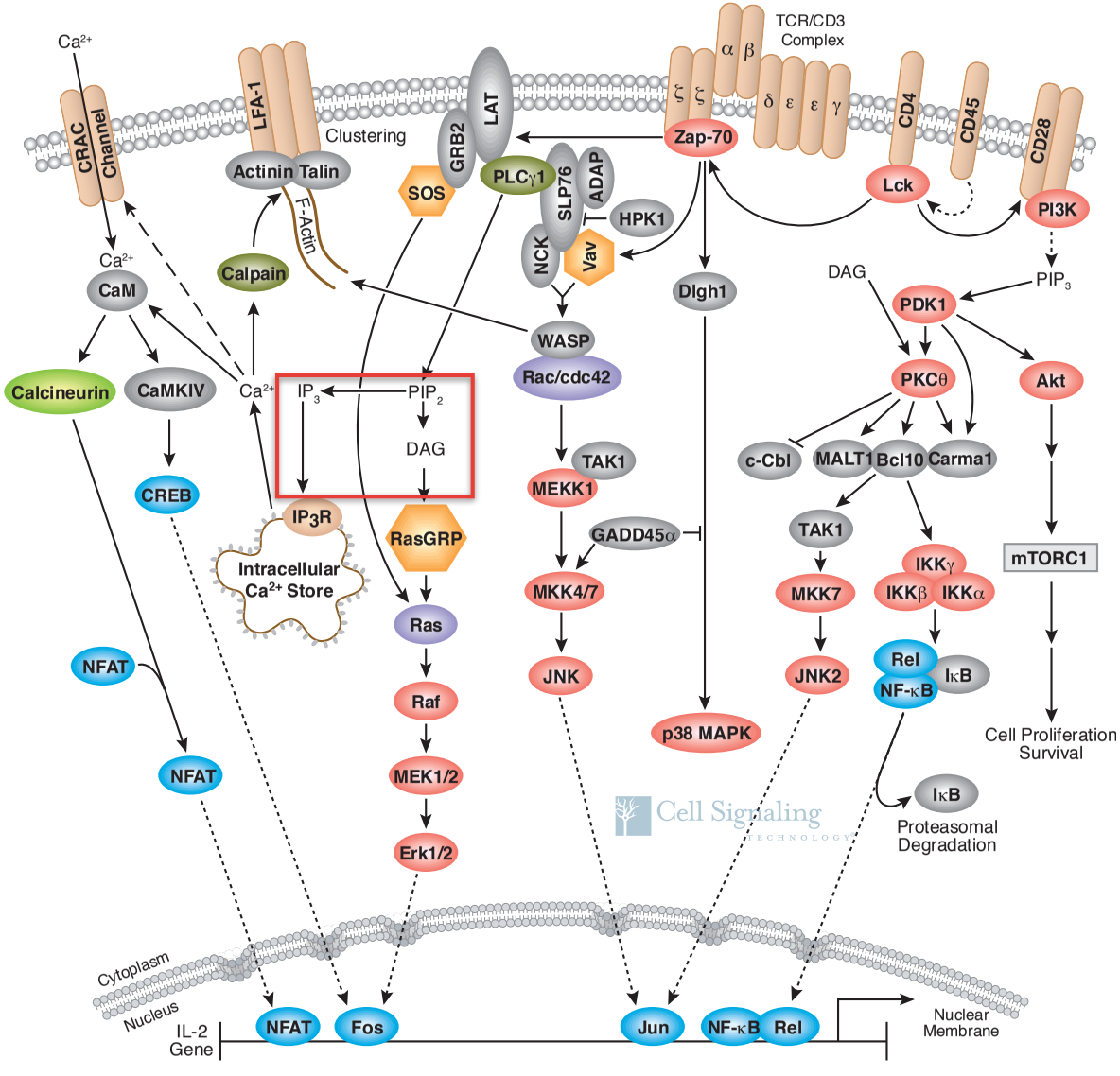


Figure 6-17 part 2 of 2 Immunobiology 7ed (© Ga



II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Voies de Signalisation déclenchées par l'activation du TCR

Voie NFAT

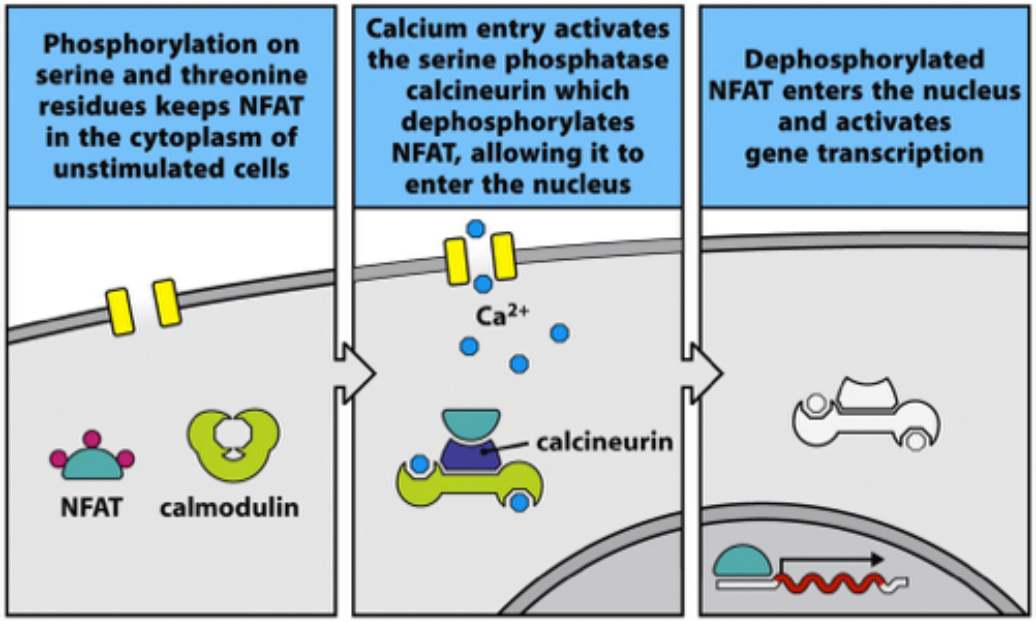
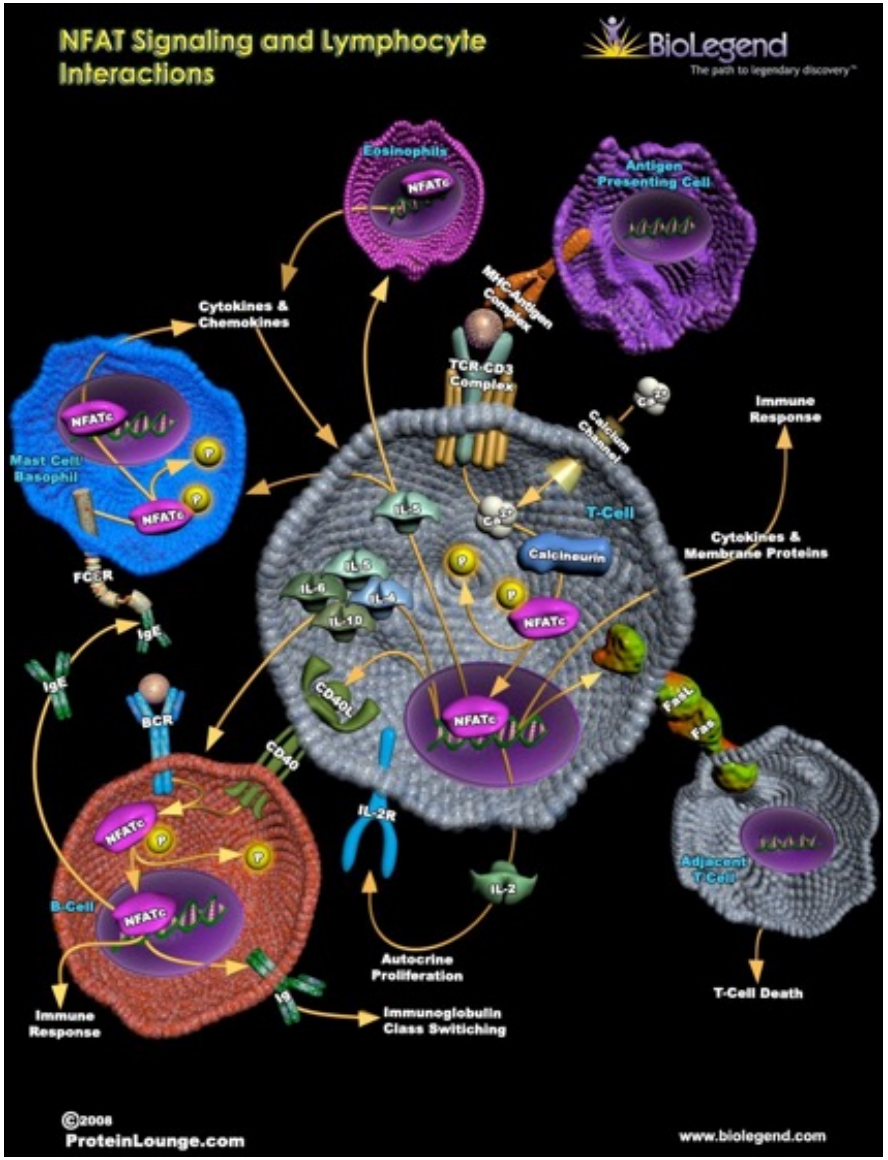


Figure 6-21 Immunobiology, 7ed. (© Garland Science 2008)



- ***NFAT*** *: Nuclear Factor of Activated T cells*
- *Liberation par activation de calmoduline puis Calcineurine suite au Ca2+*

II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Voies de Signalisation déclenchées par l'activation du TCR

Voie Erk

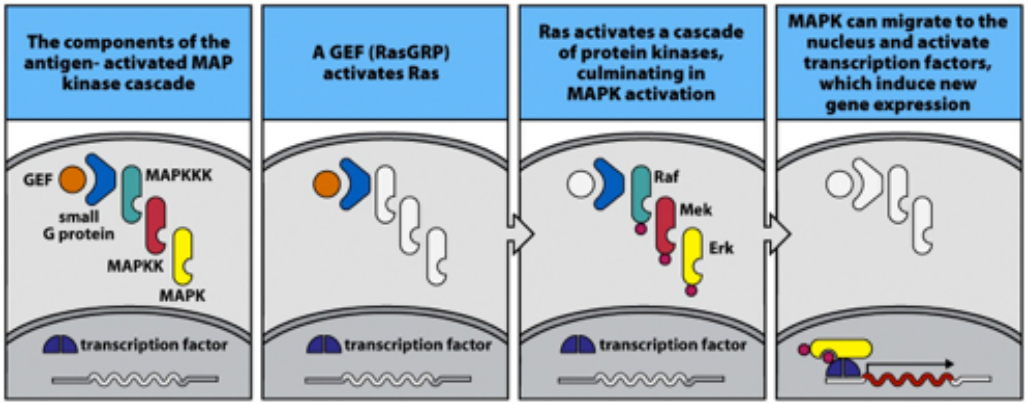


Figure 6-19 Immunobiology, 7ed. (© Garland Science 2008)

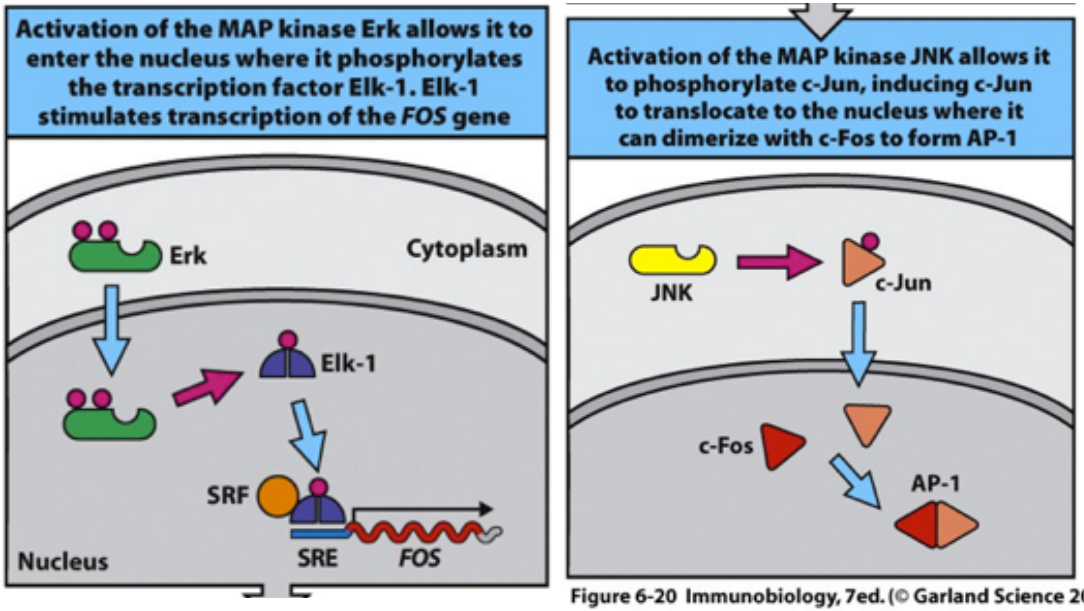
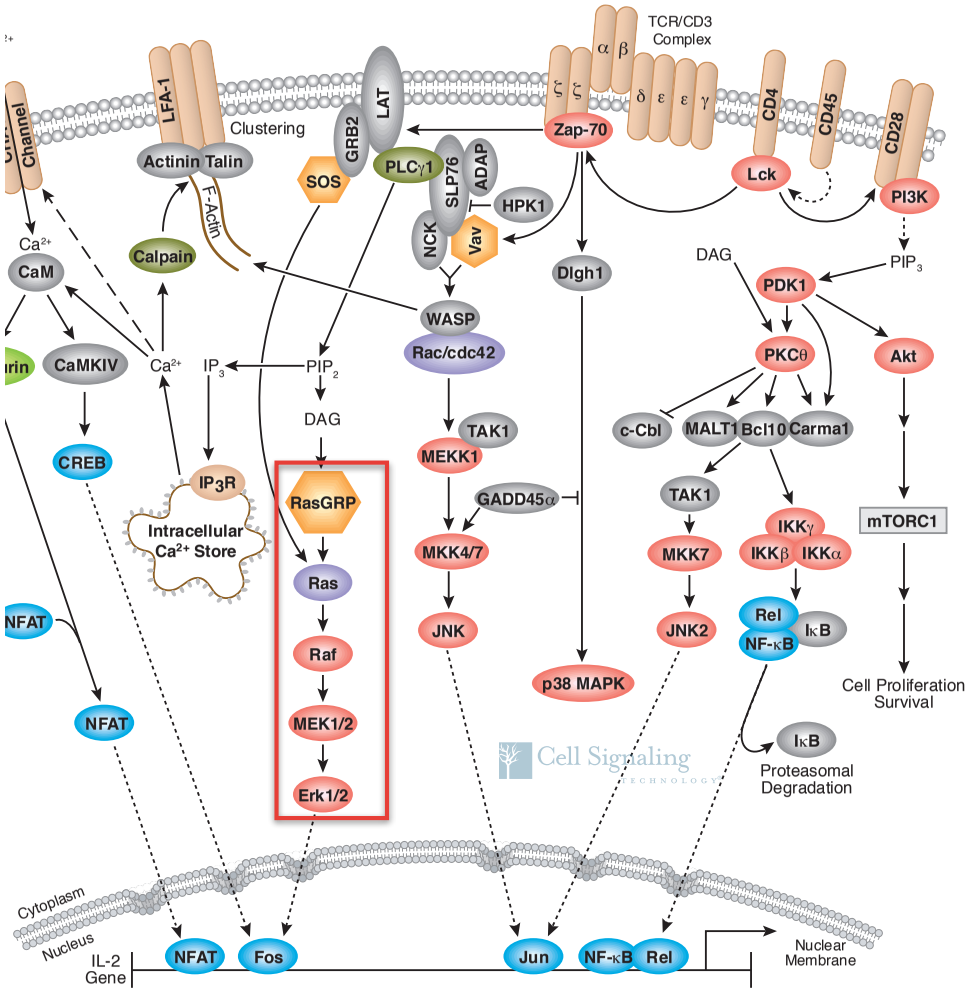


Figure 6-20 Immunobiology, 7ed. (© Garland Science 2008)

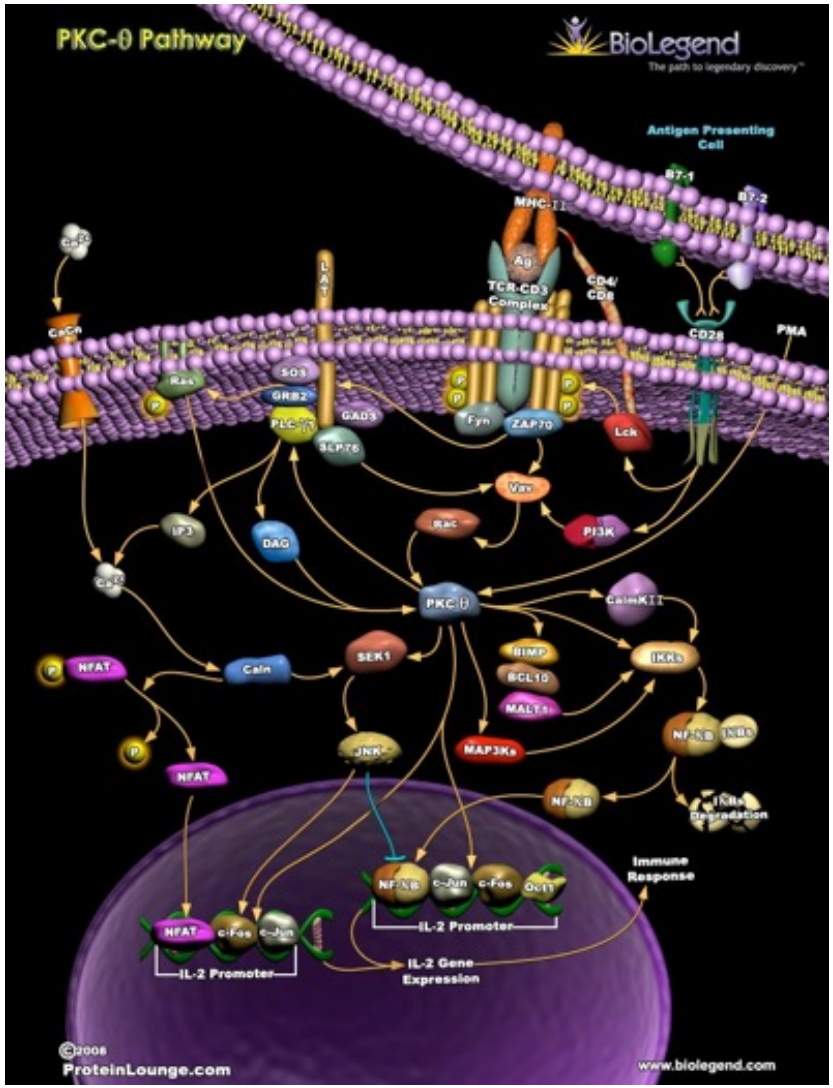


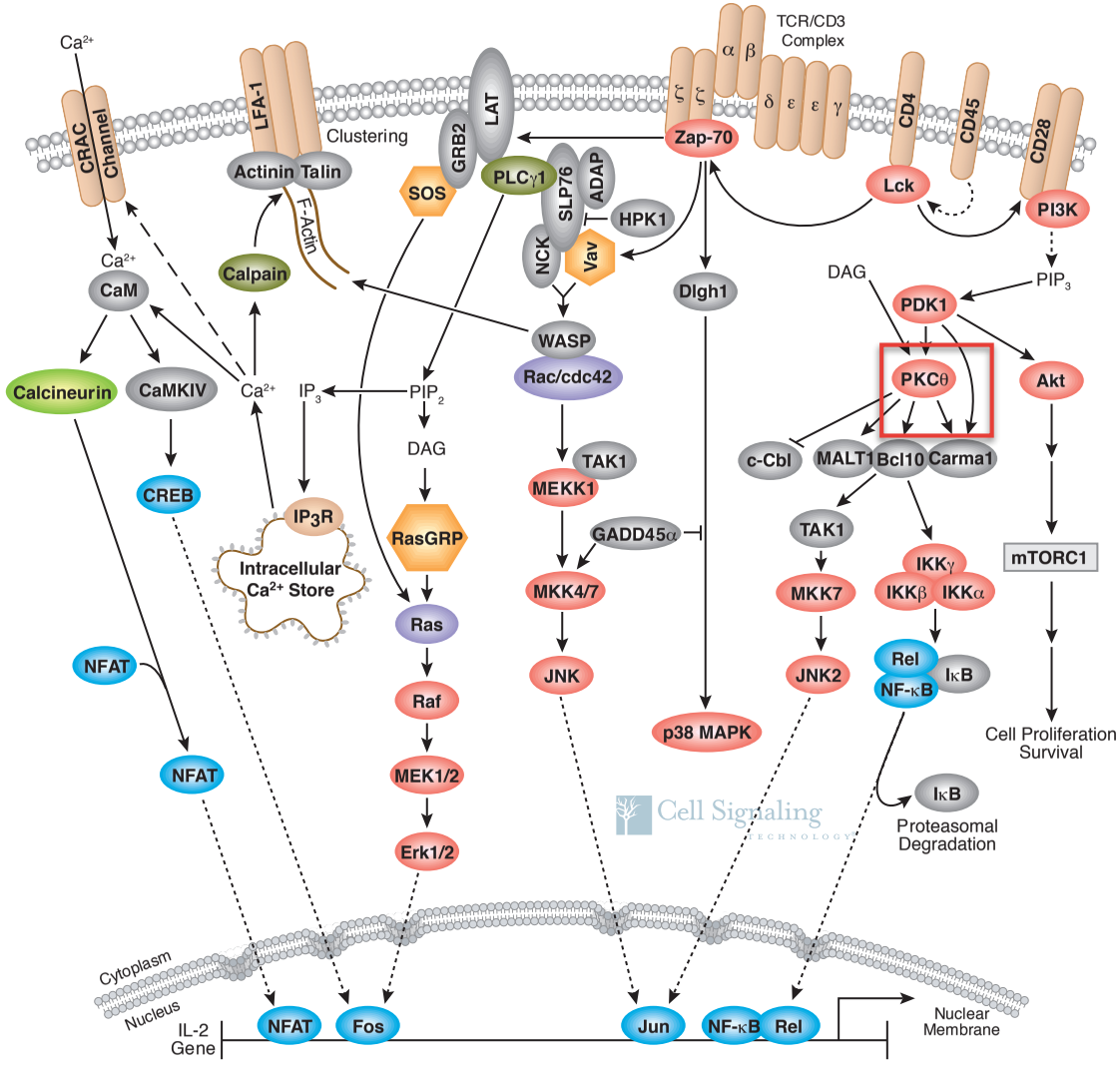
II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Voies de Signalisation déclenchées par l'activation du TCR

Voie PKC-Θ





II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Voies de Signalisation déclenchées par l'activation du TCR

Voie NF-KB

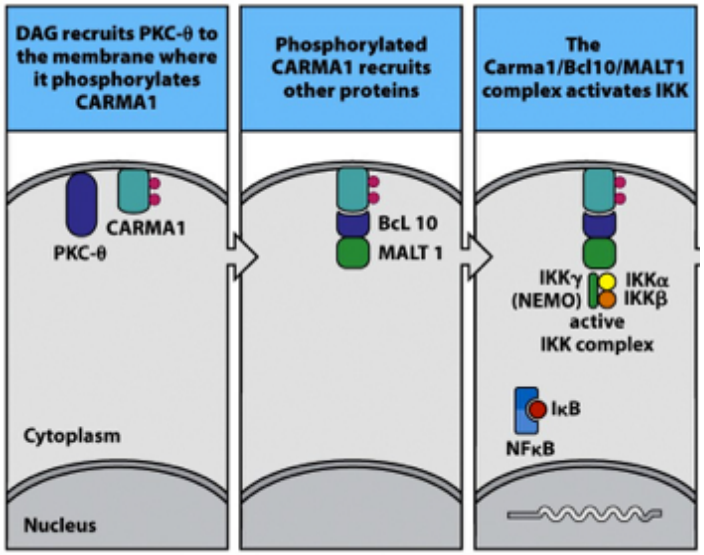
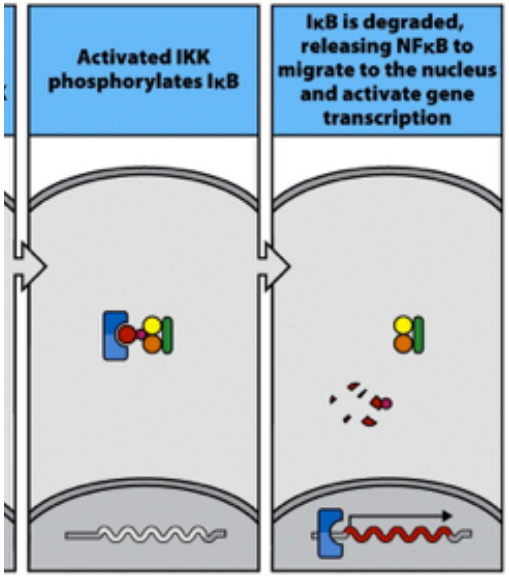
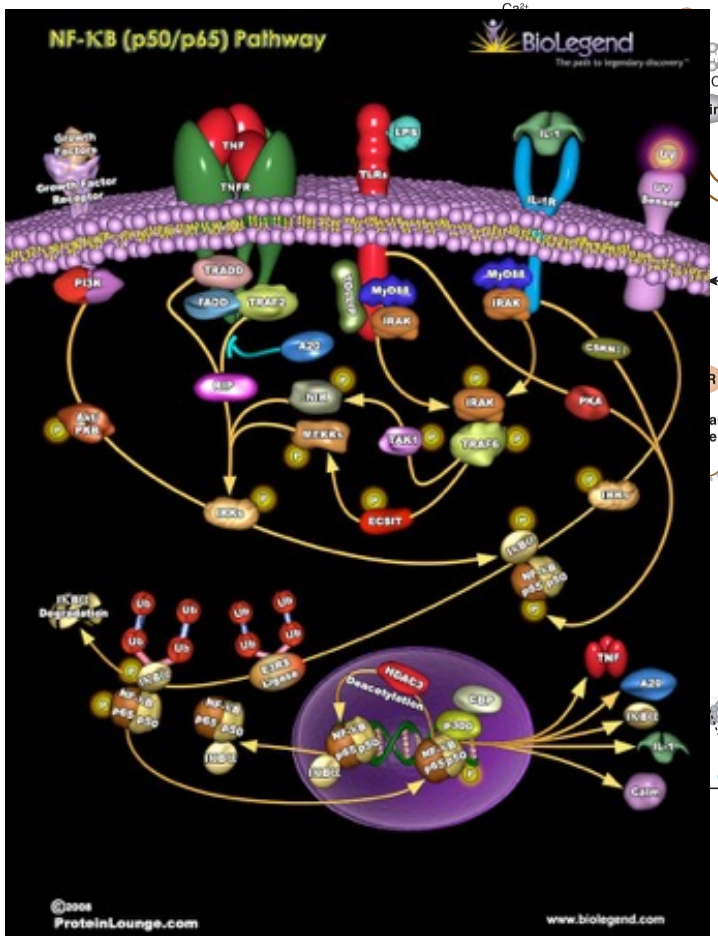
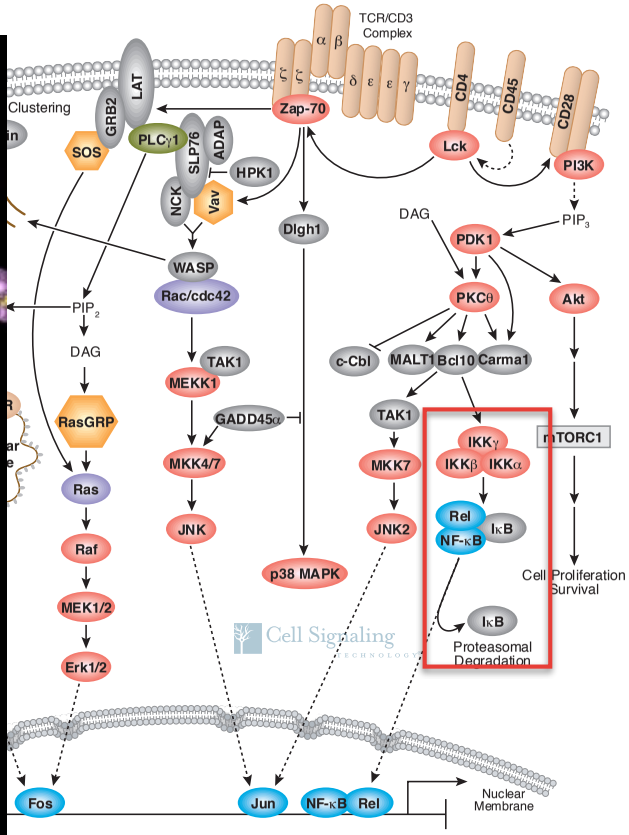


Figure 6-22 Immunobiology, 7ed. (© Garland Science 2008)



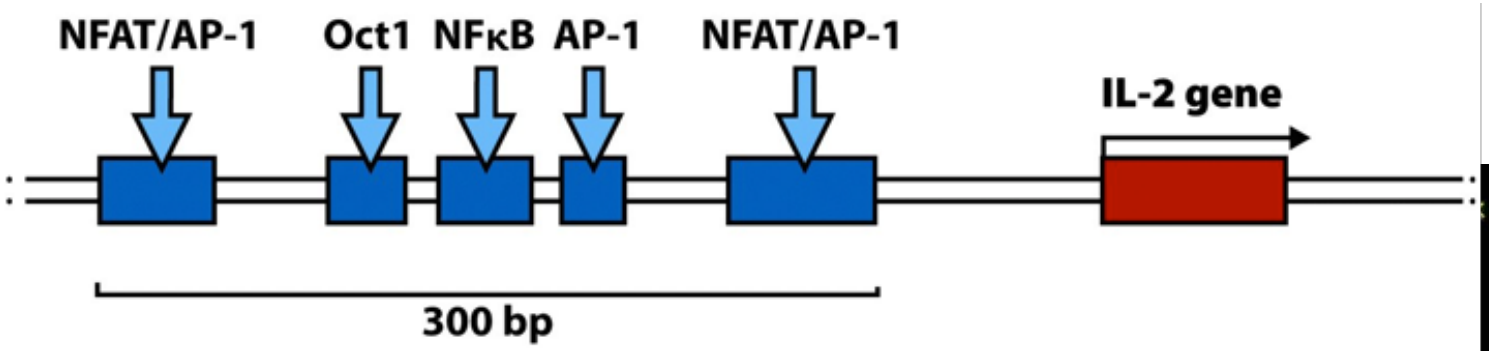


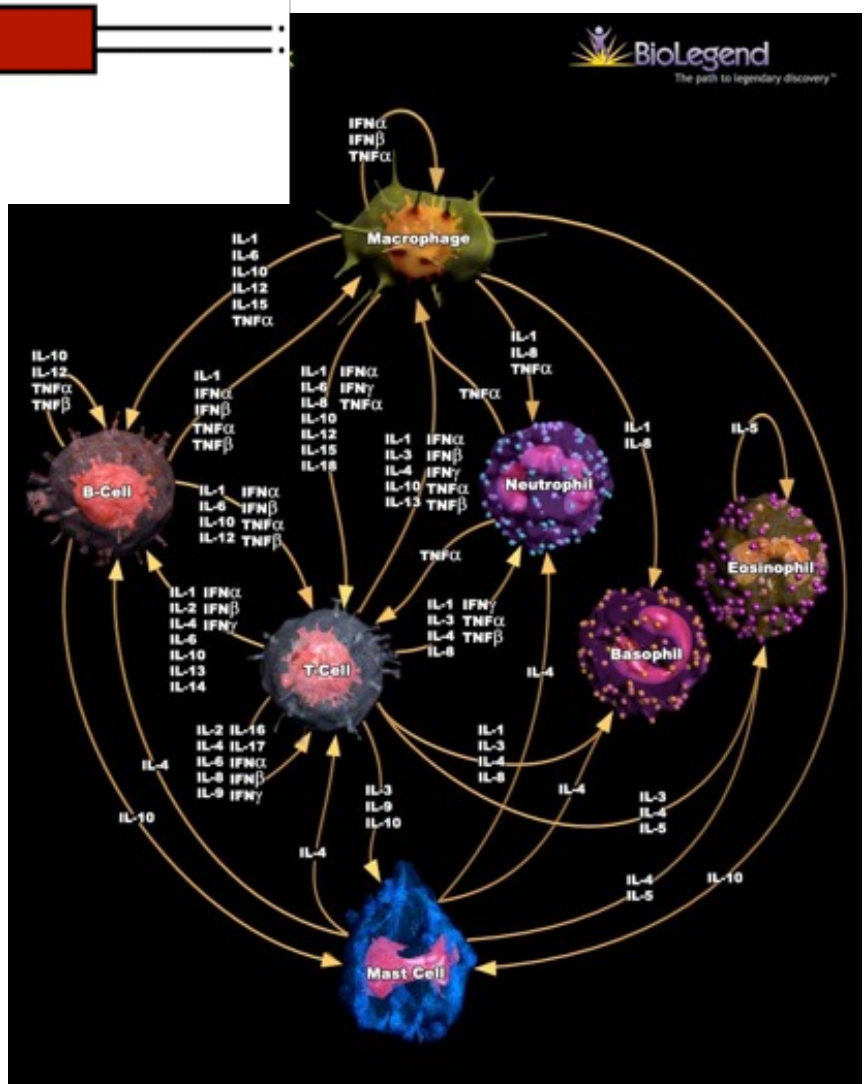


II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Impacts de l'activation du TCR





II- Cellules de l'immunité adaptative

Comparaison de la signalisation TCR *Vs* BCR

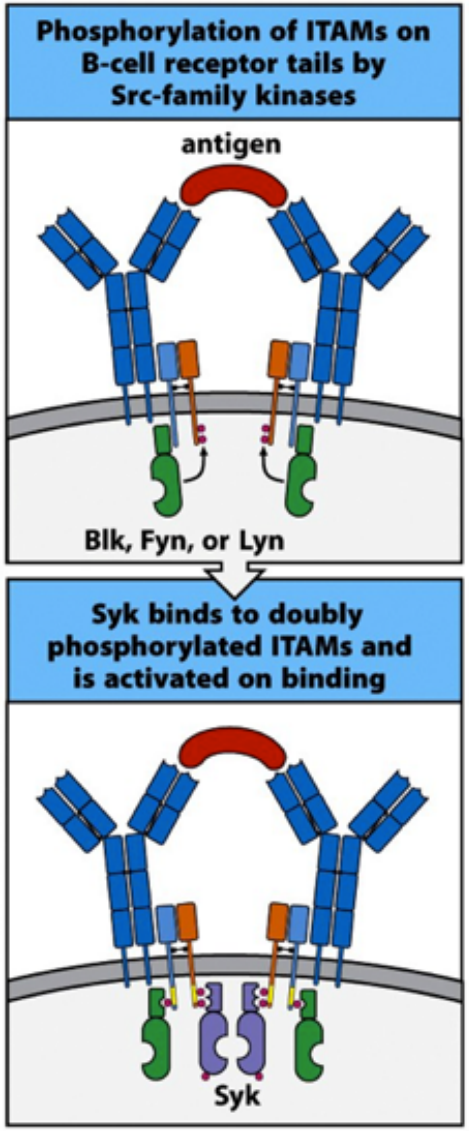


Figure 6-24 Immunobiology, 7ed. (© Garland Science 2008)

- *Pas de **ZAP-70** mais **Syk** activé directement*

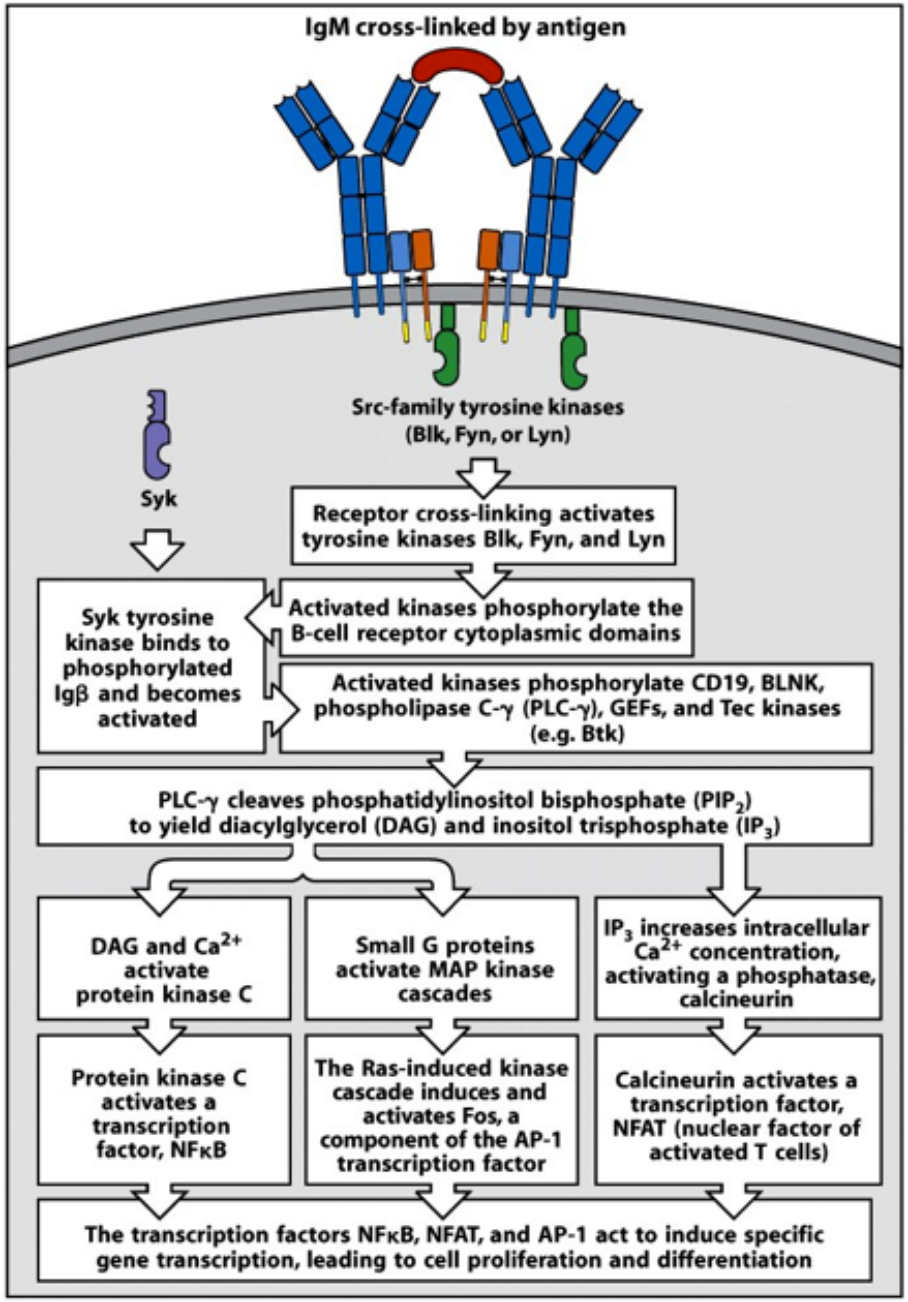


Figure 6-26 Immunobiology, 7ed. (© Garland Science 2008)

II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation via les molécules de co-stimulation

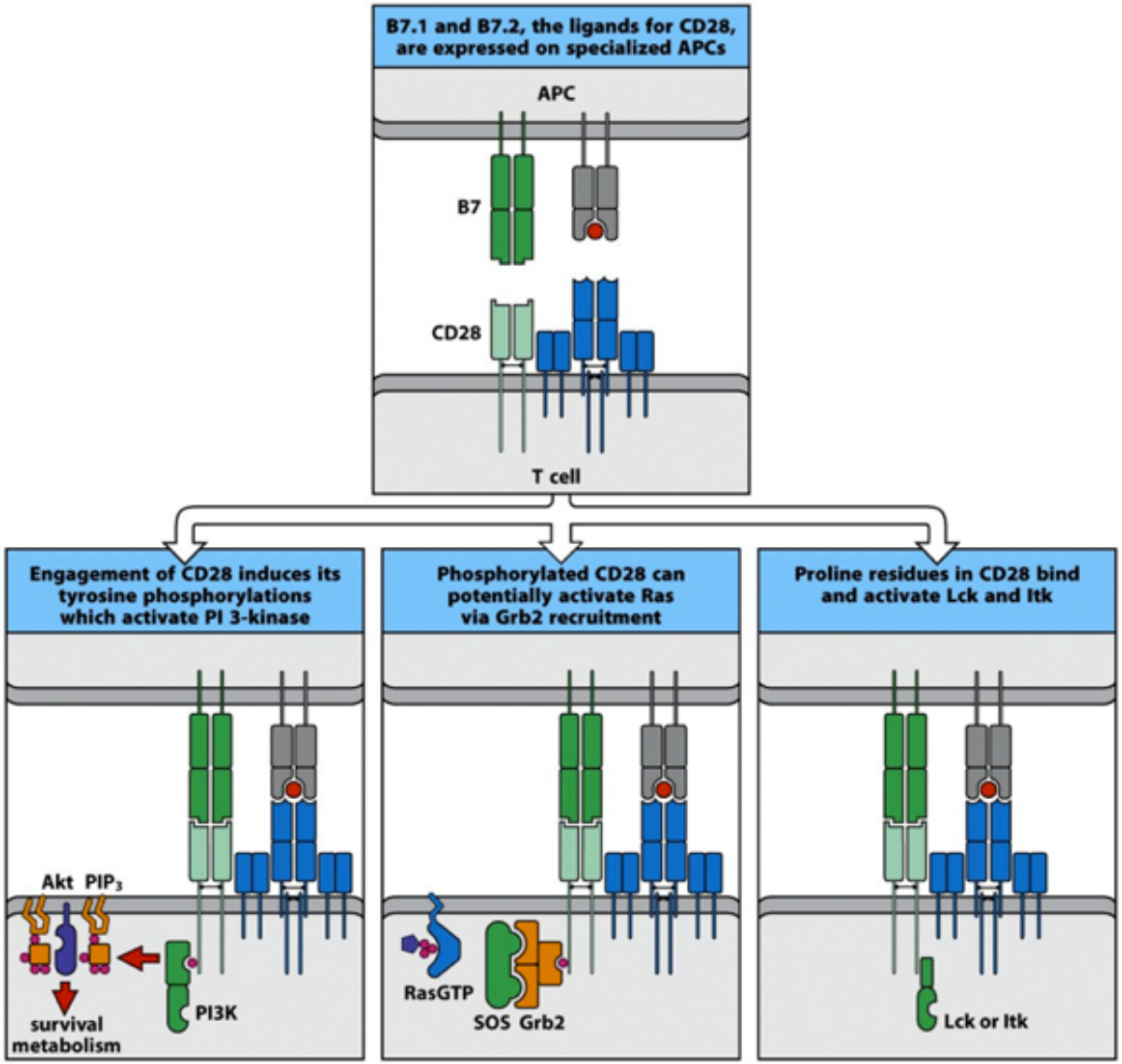
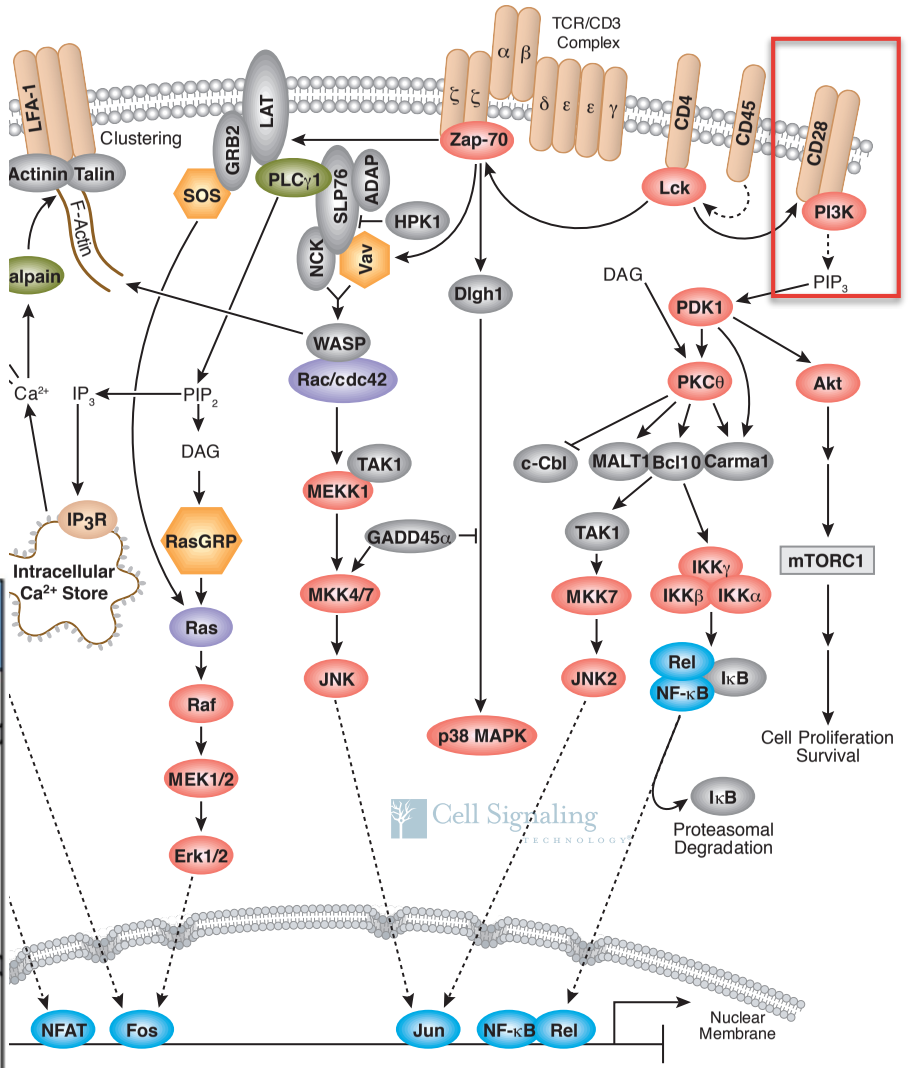


Figure 6-28 Immunobiology, 7ed. (© Garland Science 2008)



II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation via les molécules de co-stimulation

Voie JAK-STAT

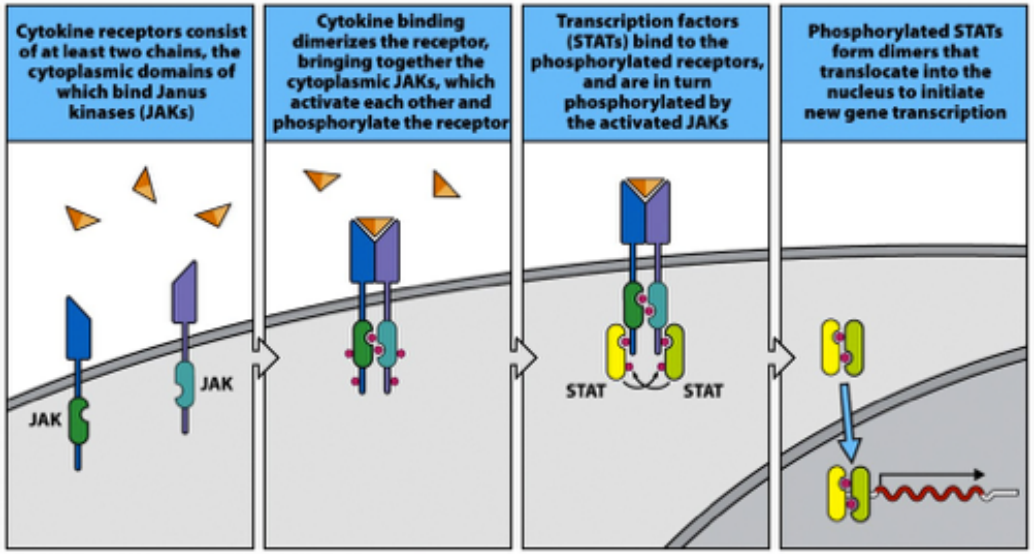
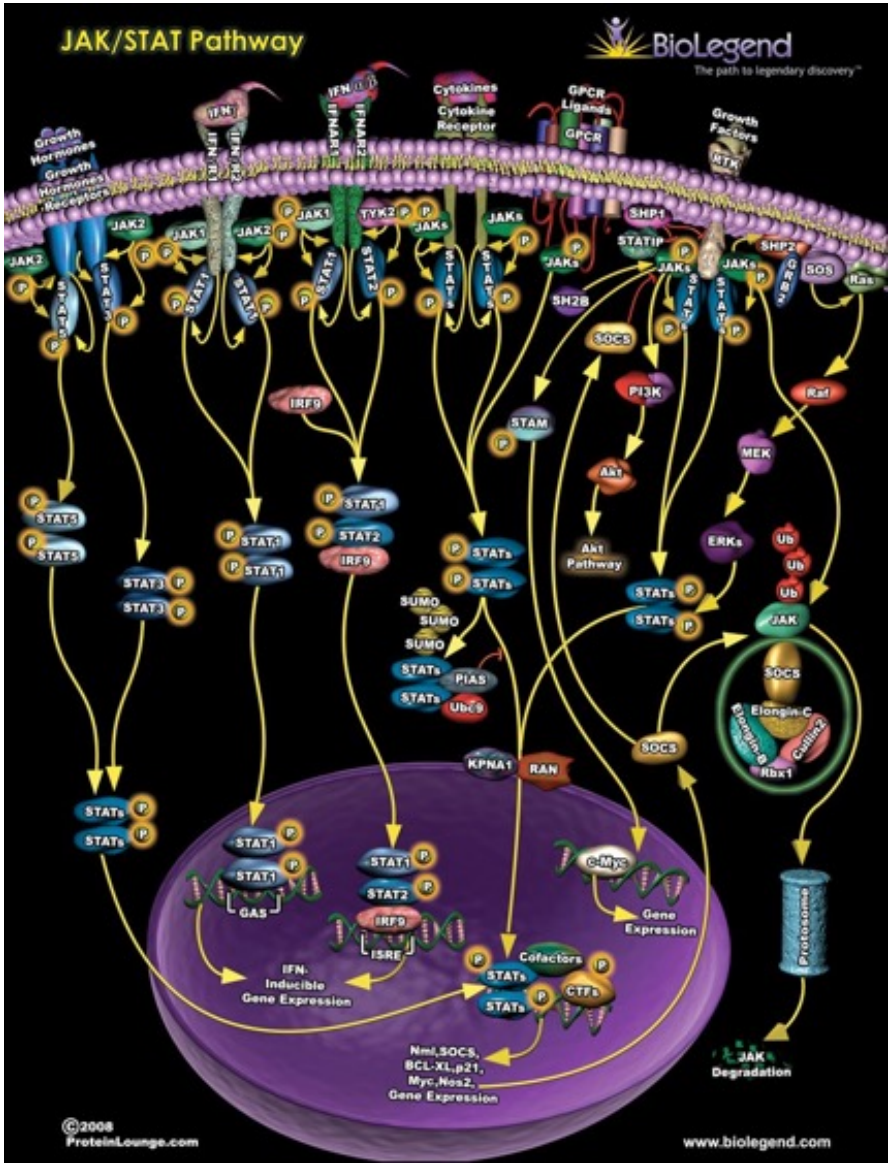


Figure 6-30 Immunobiology, 7ed. (© Garland Science 2008)



II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation via les molécules de co-stimulation

Voie Fas

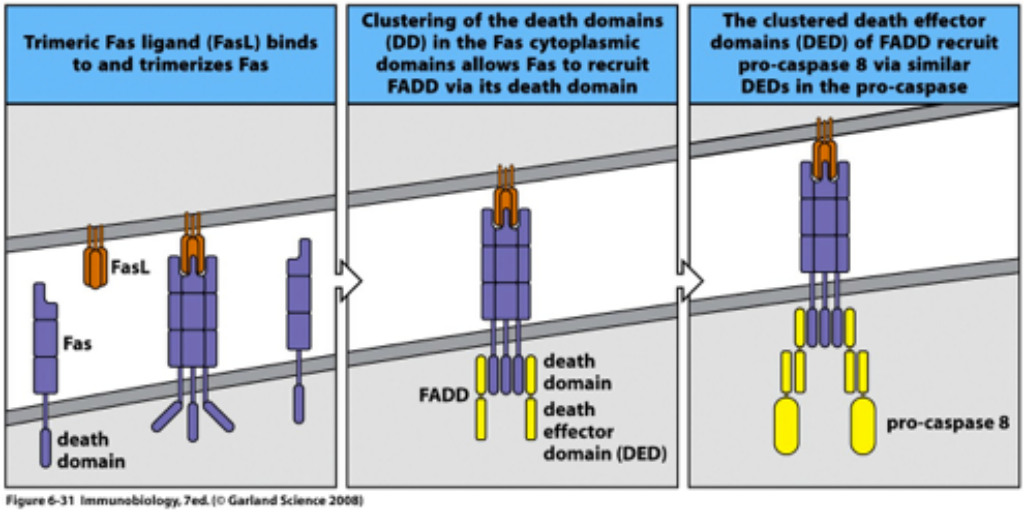
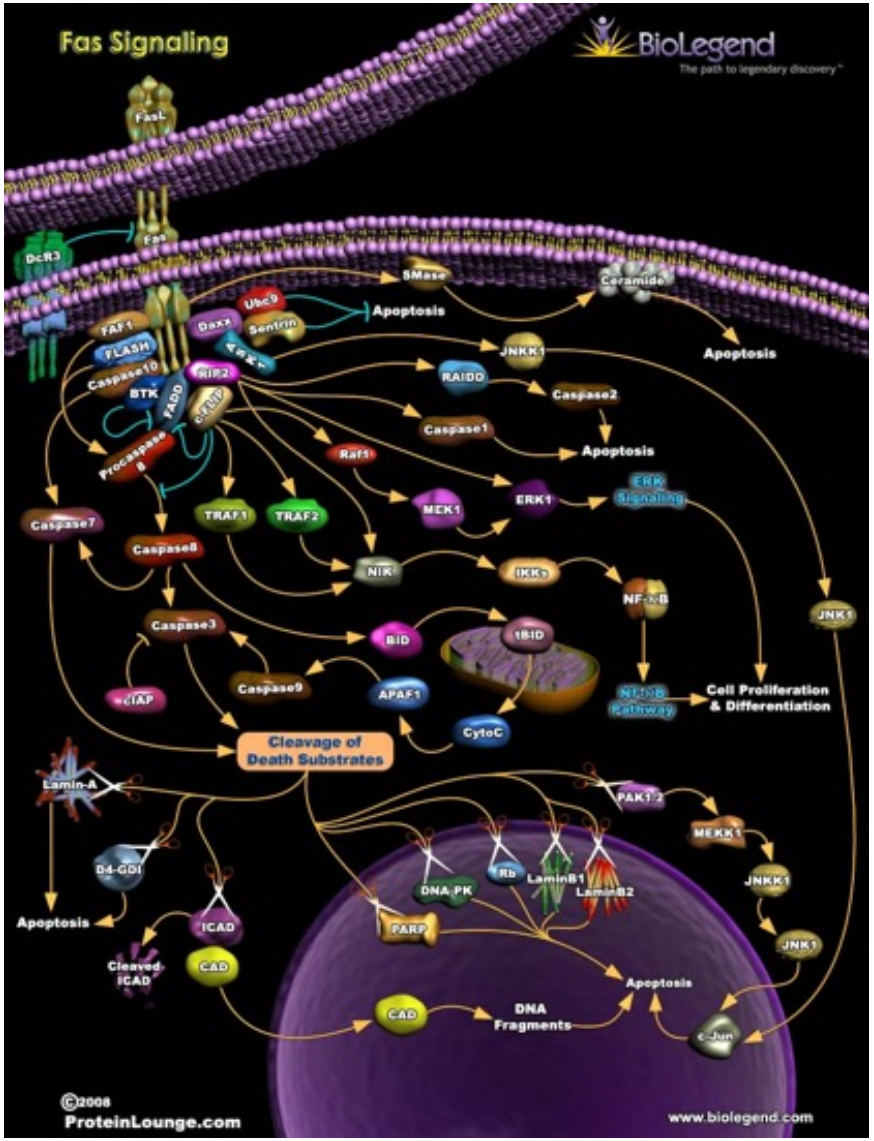


Figure 6-31 Immunobiology, 7ed. (© Garland Science 2008)



II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation via les molécules de co-stimulation

Voie du TNF

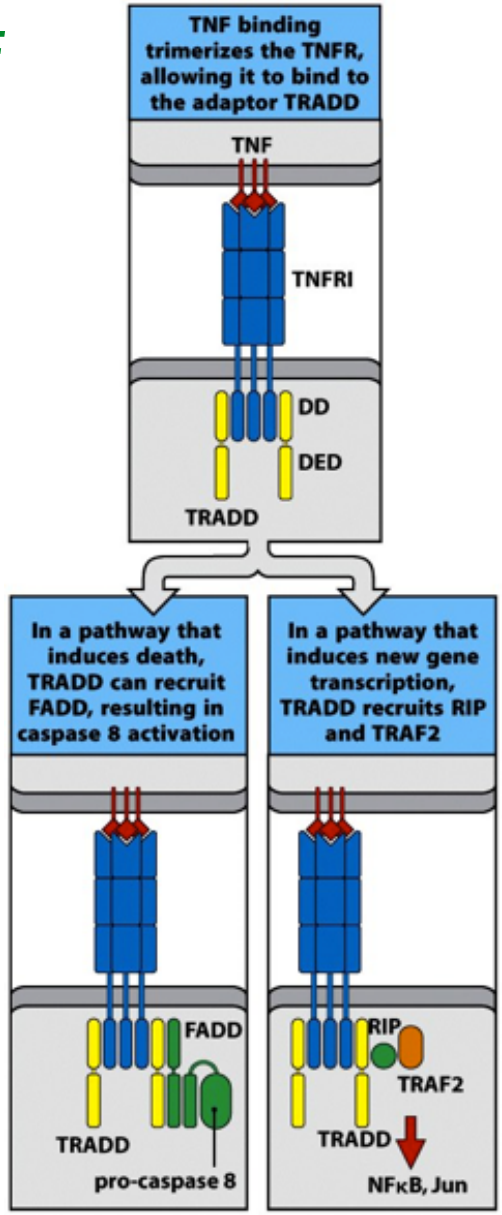
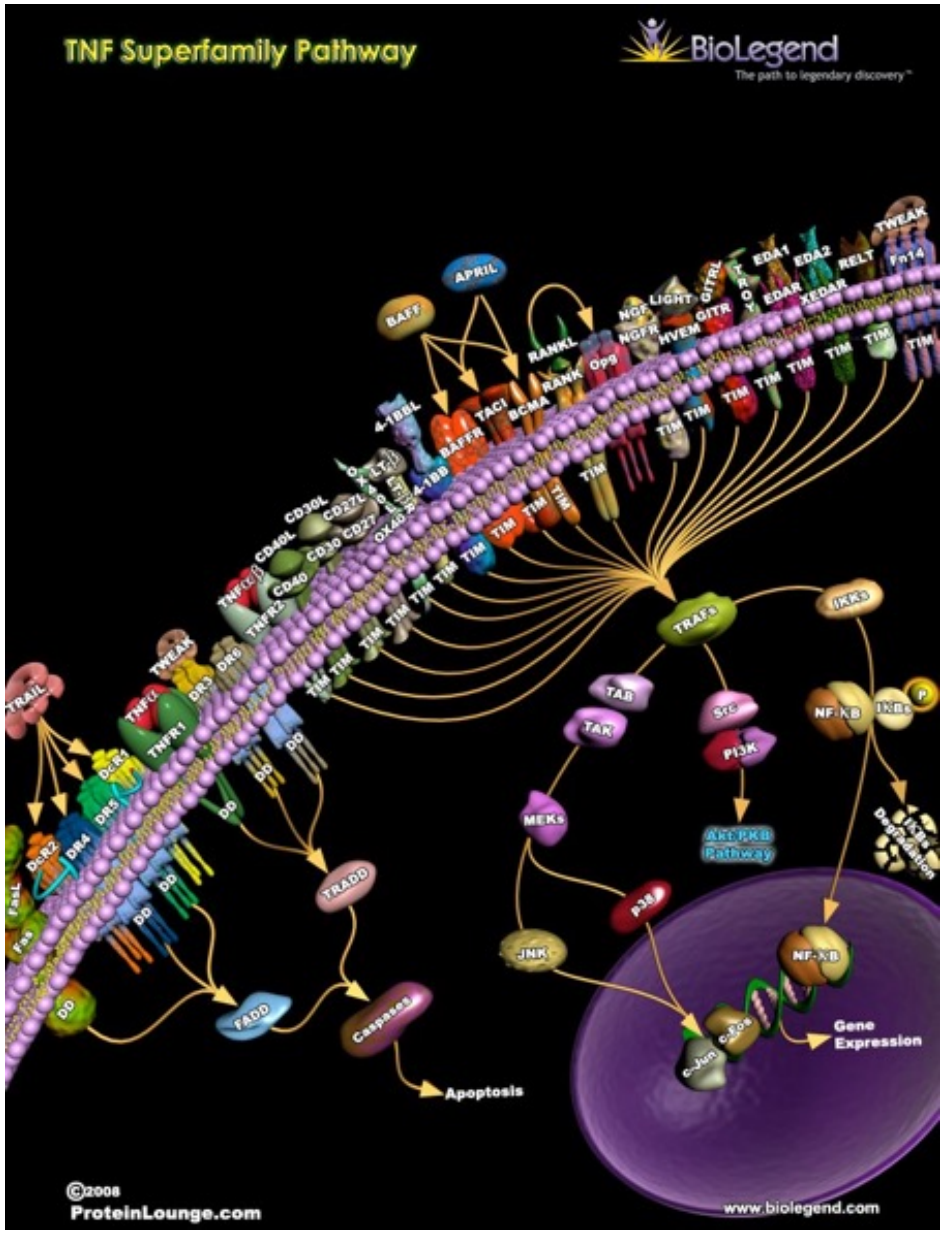


Figure 6-32 Immunobiology, 7ed. (© Garland Science 2008)

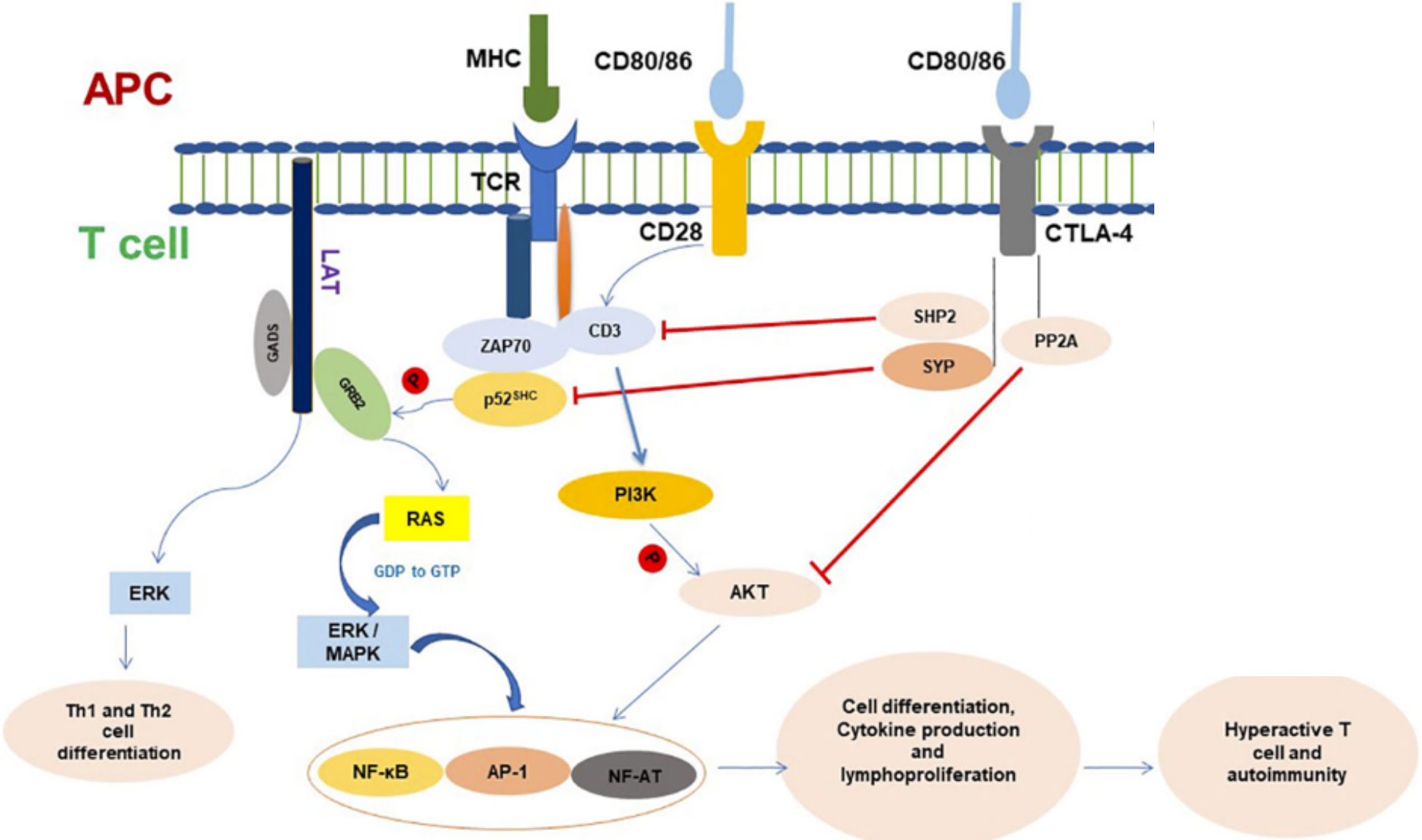


II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$: *processus moléculaire de l'activation lymphocytaire*

Signalisation via les molécules de co-stimulation

Voie du CTLA-4



II- Cellules de l'immunité adaptative

Lymphocytes T$\alpha\beta$

Déficits immunitaires

Les Syndromes Combinés Sévères (DICS) sont des engendrés suite aux déficits touchant les lymphocytes T ou bien des protéines exprimés par différentes cellules immunitaires (T&B)

- Déficience de **ZAP-70** : Diminution TCD8, TCD4 Stable
- Déficience de **CMH-I** : Diminution TCD8, TCD4 Stable
- Déficience de **CMH-II** : TCD8 Stable, Diminution TCD4

Syndrome d'Omenn

- Déficience de molécules *RAG-1* & *RAG-2*
- Incidence ~1/10^6
- Absence totale ou très marquée des lymphocytes T & B, déficience de la recombinaison VDJ