

Immune checkpoint 두번째 시간 : B7-CD28 Family



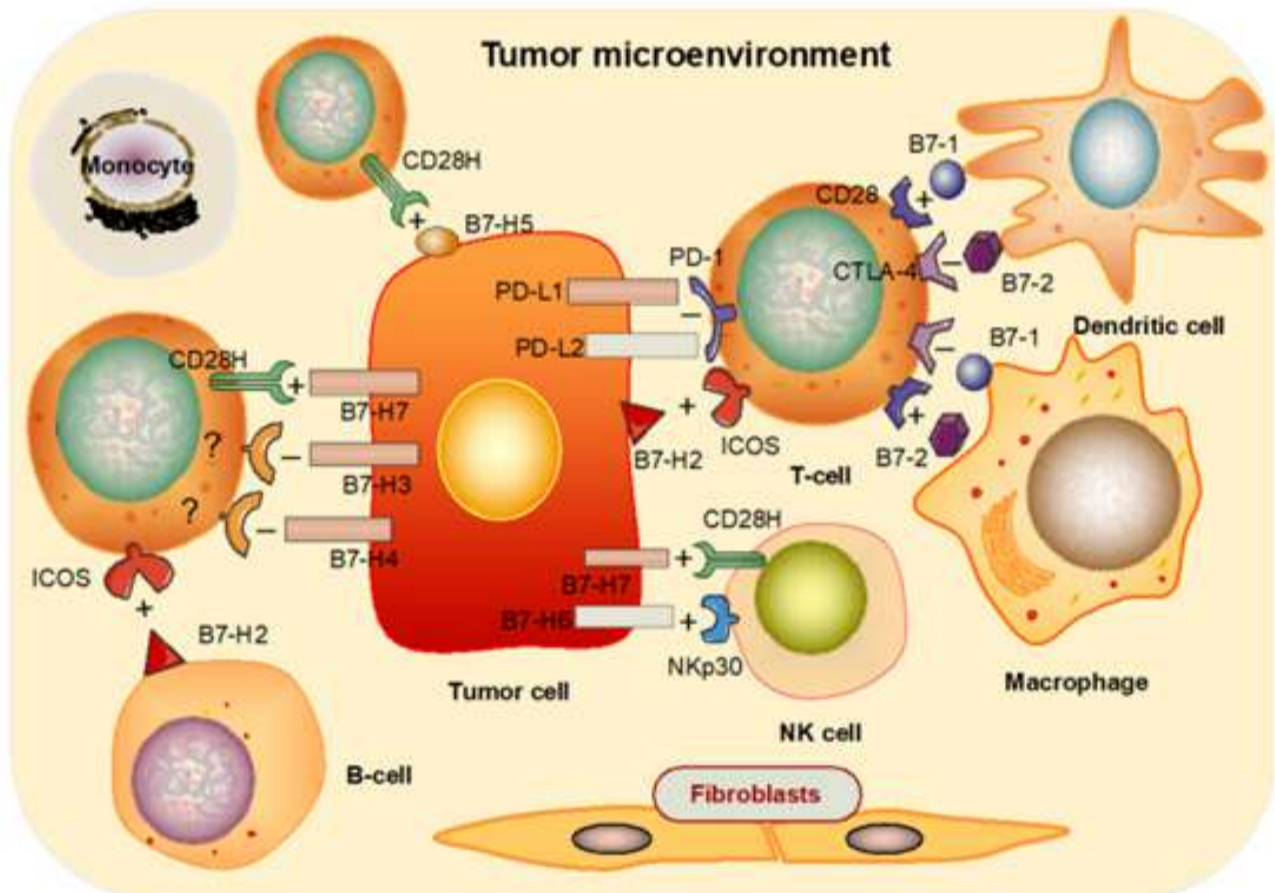
▶ B7-CD28 Family of Immune Checkpoint Proteins

B7/CD28 Family는 Immune checkpoint regulator 분야에서 많이 연구되는 것 중 하나입니다. 호스트의 면역체계를 회피기작을 만드는 암세포의 특성은 Immune checkpoint 단백질을 과역제합니다. 이 단백질 그룹은 면역세포의 수용체와 결합하여 암세포가 감지되지 않고 계속 증식할 수 있는 Negative cascade를 발생시킵니다. 하지만 이 단백질을 역이용하는 방법이 Immunotherapy 시장에서 큰 파장을 불러왔습니다. 많은 연구자들이 이 단백질 그룹의 Protein-Protein Interaction을 이용하여 면역세포의 활성 및 암세포 특이적으로 반응하는 메커니즘을 연구하고 있습니다.

▶ B7 Family Proteins in Cancer Progression: Immunological and Non-Immunological Functions

[References >>](#)

The B7 family of proteins is commonly divided into three classes according to their structure and the type of receptor they bind to. The B7 proteins exhibit both positive and negative functions with regard to the immune response and are known to be co-inhibitory or co-stimulatory ligands that regulate antitumor immune responses. They are also involved in the regulation of cancer progression via non-immunological functions such as accelerating metabolism, promoting proliferation, and facilitating chemoresistance. Given the dynamic interaction between cancer cells and B7 family proteins, each member has been considered as a novel biomarker or therapeutic target that may well improve the effectiveness of cancer diagnosis and treatment. In this review, we summarize the characteristics of B7 proteins and their immunological and non-immunological roles in cancer progression.

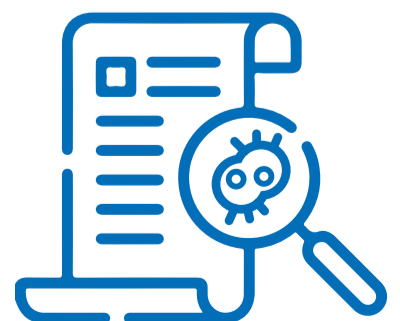
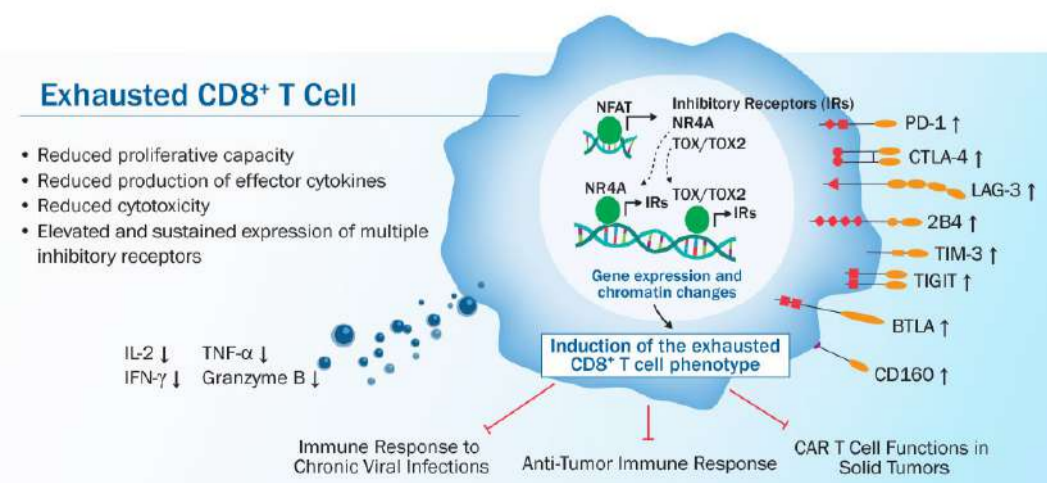


[The immune functions of the B7 family of proteins]

▶ R&D Systems의 B7/CD28 Proteins

B7 Family Ligands		CD28 Family Receptors	
B7-1/CD80	B7-H3	BTLA	TIMD2/CD28H
B7-2/CD86	B7-H4	CD28	
PD-L1/B7-H1	B7-H5/VISTA/PD-1H	CTLA-4	
PD-L2/B7-DC	B7-H6	ICOS	
B7-H2	B7-H7/HHLA2	PD-1	

▶ 이외의 Immune checkpoint와 Next generation checkpoint 정보를 확인해보세요



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