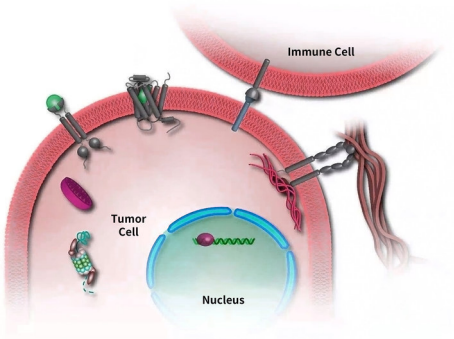
TargetMol®

A DRUG SCREENING EXPERT

Targeted Antitumor Drugs: Monoclonal Antibodies

Targeted antitumor drugs are a class of therapies that use specific structural molecules on tumor tissues or cells as targets, and use certain antibodies and ligands that can specifically bind to these target molecules for direct or directed treatment purposes. Targeted drugs can be divided into two categories: small molecule drugs and monoclonal antibodies. In recent years, monoclonal antibody drugs have developed rapidly and gradually become the main direction of development in the field of biopharmaceuticals.

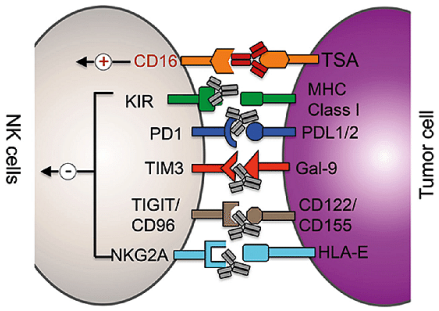


Monoclonal antibodies are antibodies secreted by B lymphocytes, which can only produce one proprietary antibody against one antigenic determinant cluster. Therefore, they have highly specific physicochemical properties, single biological activity, and strong specificity in binding to antigens. For this reason, it is also referred to as a "biological missile", and most of the existing antibody drugs fall into this category.

Targeted antibodies have defined a new concept of " Tumor Therapy" that involves a variety of tumor-related signaling pathways and targets, for example, in the treatment of solid tumors, the most commonly targeted proteins are epidermal growth factor receptor (EGFR), vascular endothelial growth factor (VEGF) and epidermal growth factor receptor- (HER/neu, or EGFR).

In recent years, immunotherapy has been one of the most prominent research methods in "Tumor Therapy", and therefore "immune checkpoints" have received much attention.

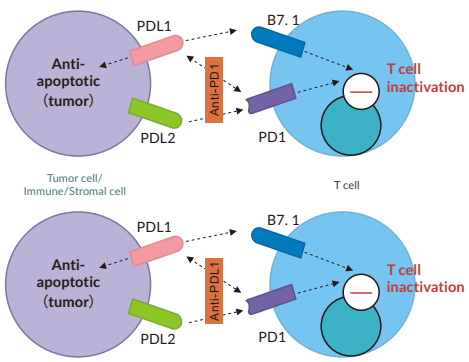
Immune checkpoints are sites that have an inhibitory effect on immune regulation during an immune response. After the immune cells involved in the antitumor immune response are activated, the expression of various receptors on their surfaces are upregulated and bind to the corresponding ligands highly expressed on the surface of tumor cells, resulting in an inhibitory effect on the immune response and thus downregulating the intensity of the tumor-associated immune responses.



In the process of tumor occurrence and development, immunotherapy is used to enhance the immune function of the body by inhibiting highly expressed immune checkpoint molecules and restoring the recognition ability of T cells, thereby clearing or slowing down the progression of tumors. The programmed death (PD-1) receptor and PD-1 /PD-L1 inhibitors are particularly notable among immunotherapies. To date, several PD-1/PD-L1 antibodies have been marketed, such as Avelumab, Nivolumab, and Pembrolizumab, and have thus become the star products of recent years.

PD-1/PD-L1 inhibitors are also known as immune checkpoint inhibitors. During tumorigenesis, tumor cells use PD-L1 to bind to PD-1 of T cells, "deceive" T cells, evade T cell recognition, and continue to damage the body. PD-L1/PD-1 antibodies can help T cells restore their ability to recognize and kill tumor cells by unmasking them from their camouflage. The most widely studied and used immune checkpoint inhibitors are PD-1, PD-L1 and CTLA-4 inhibitors.

PD-1 vs. PD-L1 Blockade



inquiry@targetmol.com

(781) 999-4286

Official Website
https://www.targetmol.com/

36 Washington Street, Wellesley Hills, MA 02481 USA

Facebook Linkedin Instagram

TargetMol®

A DRUG SCREENING EXPERT

TargetMol® can provide you with all kinds of monoclonal antibodies, including the various immune checkpoint inhibitors mentioned above and other types of targeted monoclonal antibodies to meet your experimental needs. TargetMol® has always committed to serving scientific researchers, including but not limited to recommending the most cutting-edge research reports and offering the hottest research products.

Cat.No.	Products	CAS Number	Targets	Size	Price(USD)
T9901	Adalimumab	331731-18-1	TNF-α	5mg	544.00
T9902	Atezolizumab	1380723-44-3	HPD-L1	5mg	544.00
T9903	Avelumab	1537032-82-8	PD-L1	5mg	1,584.00
T9904	Bevacizumab	216974-75-3	VEGF	5mg	535.00
T9905	Cetuximab	205923-56-4	EGFR	5mg	527.00
T9906	Ipilimumab	477202-00-9	CTLA-4	5mg	1,345.00
T9907	Nivolumab	946414-94-4	PD-1/PD-L1 Interaction	5mg	544.00
T9908	Pembrolizumab	1374853-91-4	PD-1	5mg	542.00
T9909	Pertuzumab	380610-27-5	HER2	5mg	558.00
T9910	Rituximab	174722-31-7	CD20	5mg	544.00
T9911	Tocilizumab	375823-41-9	IL-6R	5mg	558.00
T9912	Trastuzumab	180288-69-1	HER2	5mg	535.00
T9913	Ustekinumab	815610-63-0	IL-12,IL-23	5mg	2,043.00
T9914	Vedolizumab	943609-66-3	Integrin	5mg	558.00
T9915	Eculizumab	219685-50-4	Complement Protein C5	5mg	1,806.00
T9916	Alirocumab	1245916-14-6	PCSK9	5mg	1,744.00
T9917	Denosumab	615258-40-7	RANK Ligand	5mg	1,321.00
T9918	Daratumumab	945721-28-8	CD38	5mg	576.00
T9919	Alemtuzumab	216503-57-0	CD52	5mg	1,816.00
T9920	Evolocumab	1256937-27-5	PCSK9	5mg	1,757.00
T9921	Infliximab	170277-31-3	TNF-α	5mg	247.00
T9922	Matuzumab	339186-68-4	EGFR	5mg	2,240.00
T9923	Nimotuzumab	828933-51-3	EGFR	5mg	2,023.00
T9924	Obinutuzumab	949142-50-1	CD20	5mg	660.00
T9925	Ofatumumab	679818-59-8	CD20	5mg	1,909.00
T9926	Omalizumab	242138-07-4	IgE	5mg	506.00
T9927	Panitumumab	339177-26-3	EGFR	5mg	1,217.00
T9928	Ranibizumab	347396-82-1	VEGF	5mg	1,950.00
T9929	Ramucirumab	947687-13-0	VEGFR2	5mg	806.00
T9930	Secukinumab	875356-43-7	IL17A	5mg	1,249.00
T11126	Durvalumab	1428935-60-7	PD-L1/PD-1	5mg	539.00