PRODUCT INFORMATION



CD8β recAb (YTS156.7.7) InVivoPure+

Endotoxin level \leq 1 EU/mg

Description:

The **CD8** β **recAb** (**YTS156.7.7**) reacts with the ~25 kDa beta subunit of mouse CD8 $\alpha\beta$, also known as Ly-3, Lyt-3, CD8 β or CD8 beta subunit [1]. CD8 $\alpha\beta$ acts as a co-receptor with peptidebound class I major histocompatibility complex (pMHC) on antigen-presenting cells (APC) for TCR-mediated activation of cytotoxic T cells [2].

CD8 β recAb (YTS156.7.7) blocks this interaction, playing an essential role in immune responses against internal and external offenses [3]. The CD8 β mAb (YTS156.7.7) is widely used as a phenotypic marker for mouse CD8 $\alpha\beta$ on cytotoxic T cells [4].

The original CD8 β antibody (clone YTS156.7.7) is of rat IgG2b isotype. The present CD8 β recAB (YTS156.7.7) antibody is designed as a chimeric antibody with wildtype mouse IgG2a kappa isotype, resulting in an anti-mouse CD8 β recAb (YTS156.7.7) mouse IgG2a recombinant antibody.

The recombinant antibody is produced exclusively under serum-free (chemically defined, animal component free) conditions in human embryonic kidney (HEK) cells and purified with Protein-A or Protein-G affinity chromatography.

Product-ID:	RP_SZ_1011P+
Clone:	YTS156.7.7
Immunogen:	Mouse CD8 (lyt-3)
Expression System:	Mammalian; HEK
lsotype:	Mouse IgG2a k
Formulation:	Clear Liquid, PBS, pH 7.4, 0.2 μm sterile filtered
Concentration:	≥ 1.00 mg/mL
Purity:	≥ 95 % (CGE, reducing conditions)
	≤ 5 % aggregates (analytical SEC)
Endotoxin:	≤ 1 EU/mg (LAL test)
Storage:	2 - 8 °C
Recommended Isotype Control:	Mouse lgG2a к lsotype Control (AK3399P+)
Reported Application:	FACS ; IHC ; IF ; Fn

The product is for research use only and not for use in diagnostic or therapeutic procedures.

InVivo BioTech Services GmbH is certified to ISO 9001 and ISO 13485.

PRODUCT INFORMATION



Literature:

- [1] Goodall KJ, Nguyen A, Andrews DM, Sullivan LC. Ribosylation of the CD8αβ heterodimer permits binding of the nonclassical major histocompatibility molecule, H2-Q10. J Biol Chem. 2021 Oct;297(4):101141. doi: 10.1016/j.jbc.2021.101141. Epub 2021 Aug 31. PMID: 34478713; PMCID: PMC8517849.
- Shore DA, Issafras H, Landais E, Teyton L, Wilson IA. The crystal structure of CD8 in complex with YTS156.7.7
 Fab and interaction with other CD8 antibodies define the binding mode of CD8 alphabeta to MHC class I. J
 Mol Biol. 2008 Dec 31;384(5):1190-202. doi: 10.1016/j.jmb.2008.09.069. Epub 2008 Oct 7. PMID: 18929574;
 PMCID: PMC2631232.
- [3] Nakayama K, Nakayama K, Negishi I, Kuida K, Louie MC, Kanagawa O, Nakauchi H, Loh DY. Requirement for CD8 beta chain in positive selection of CD8-lineage T cells. Science. 1994 Feb 25;263(5150):1131-3. doi: 10.1126/science.8108731. PMID: 8108731.
- [4]van der Merwe PA, Davis SJ. Molecular interactions mediating T cell antigen recognition. Annu Rev Immunol.2003;21:659-84. doi: 10.1146/annurev.immunol.21.120601.141036. Epub 2001 Dec 19. PMID: 12615890.



CD8β recAb (YTS156.7.7) InVivoPure+ — Supplementary Data



Analytical SEC:

Analytical SEC of purified protein (blue) in comparison with gel filtration standard (red).

Capillary gel electrophoresis:



CGE of the purified protein under reducing (red.) conditions.