



## Source

Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (CDE-M120a) is recombinantly produced from human 293 cells (HEK293).

*Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (CDE-M120a), designed for preclinical stage, has the same activity and performance with GMP Monoclonal Anti-Human CD3 Antibody (OKT3) (GMP-MC0323), which enables a seamless transition from preclinical development to clinical phases. Premium Grade product offer a cost efficient alternative of GMP Grade products for the early development phase when safety of raw materials is not top priority. By using Premium Grade products in early development phase, you can transition easily into clinical and commercial phase without need to revalidate the raw materials and modify manufacturing process.*

## Isotype

Mouse IgG2a/kappa

## Conjugate

Unconjugated

## Specificity

This product is a specific antibody specifically reacts with CD3 epsilon.

## Endotoxin

Less than 0.002 EU per  $\mu\text{g}$  by the LAL method.

## Protein A

<5 ppm of protein tested by ELISA.

## Host Cell Protein

<0.5 ng/ $\mu\text{g}$  of protein tested by ELISA.

## Host Cell DNA

<0.02 ng/ $\mu\text{g}$  of protein tested by qPCR.

## Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-HPLC.

## Sterility

Negative

## Mycoplasma

Negative.

## Formulation

Supplied as 0.2  $\mu\text{m}$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

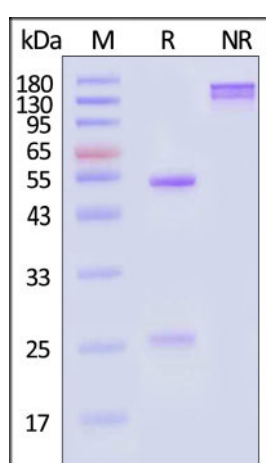
## Storage

For long term storage, the product should be stored at liquid state at  $-70^{\circ}\text{C}$ .

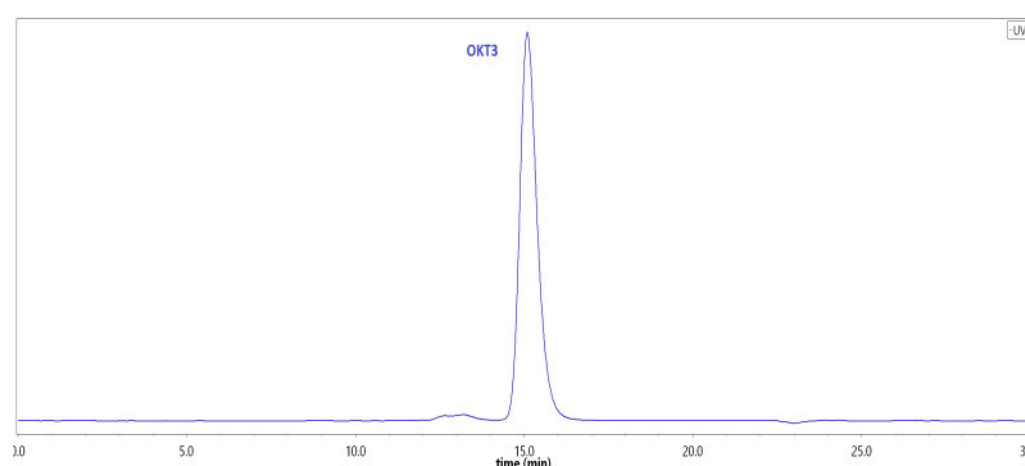
This product is stable after storage at:

- $2-8^{\circ}\text{C}$  for 12 months under sterile condition;
- $-70^{\circ}\text{C}$  for 24 months.

## SDS-PAGE



## SEC-HPLC



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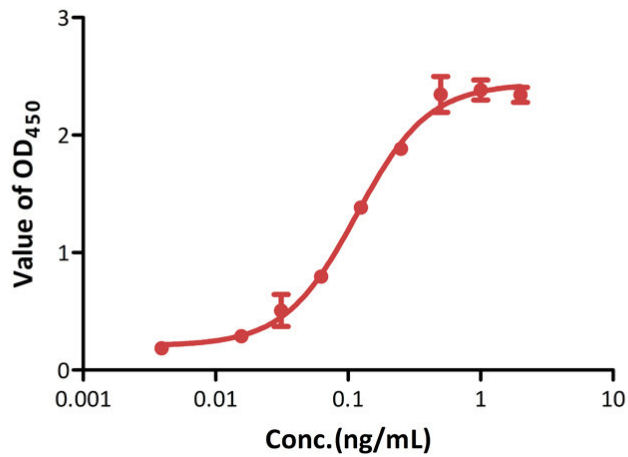


Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

The purity of Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (Cat. No. CDE-M120a) is more than and the molecular weight of this protein is around verified by SEC-MALS.

**Bioactivity-Bioactivity CELL BASE**

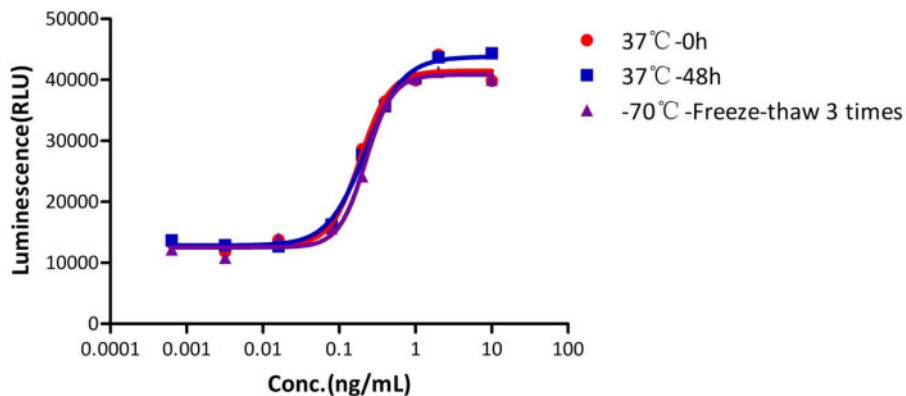
**Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade stimulates secretion of IL-2 by PBMC**



Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone OKT3), premium grade (Cat. No. CDE-M120a) stimulates secretion of IL-2 by PBMC stimulated with 10 ng/mL Monoclonal Anti-Human CD28 Antibody, Mouse IgG1. The typically EC50 for this effect is 0.12 ng/mL (QC tested).

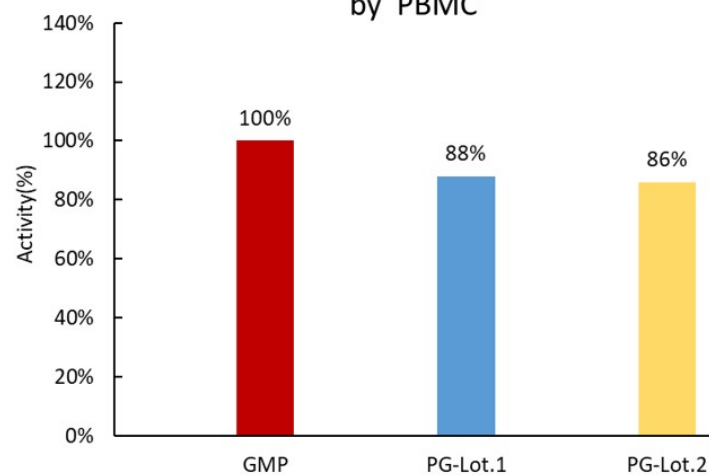
**Bioactivity-Stability**

**Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), Ultra-low endotoxin stimulates proliferation of PBMC**



The Cell based assay shows that Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), Ultra-low endotoxin (Cat. No. CDE-M120a) is stable at 37°C for 48 hours and after freezing and thawing 3 times.

**CD3 Antibody stimulates secretion of IL-2 by PBMC**



The Cell based assay shows batch-to-batch consistency between Acro's GMP and PG CD3 Antibody.

**Background**

CD3ε molecule, epsilon is also known as CD3E, is a T-cell surface single-pass type I membrane glycoprotein. CD3E contains 1 Ig-like (immunoglobulin-like) domain and 1 ITAM domain. CD3E, together with CD3-γ, CD3-δ and CD3-ζ, and the T-cell receptor α/β and γ/δ heterodimers, forms the T cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development. CD3E plays an essential role in T-cell development, and defects in CD3E gene cause severe immunodeficiency. CD3E gene has also been linked to a susceptibility to type I diabetes in women. CD3E has been shown to interact with TOP2B, CD3EAP and NCK2.

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