Rev05
Update: Aug,31,2026

DATASHEET

MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit

Cat. No.: A02313

Overview

Specificity	This product is specific for OKT3 monoclonal antibody.
Host Species	Rabbit
Immunogen	OKT3 monoclonal antibody
Conjugate	Unconjugated

Applications

Working concentrations for specific applications should be determined by the investigators. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

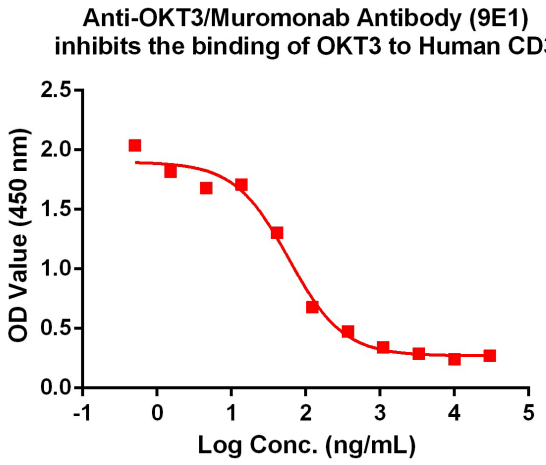
Application	Recommended Usage
Sandwich ELISA	0.5-2 μg/ml
ELISA	0.01-1 μg/ml
Competitive ELISA	0.05-10 μg/ml

Properties

Form	Lyophilized
Storage Buffer	Lyophilized with PBS, pH 7.2, containing 0.02% sodium azide.
Reconstitution	Reconstitute the lyophilized antibody with deionized water (or equivalent) to a final concentration of 0.5 mg/mL.
Storage Instructions	The lyophilized product remains stable for 1 year at -20°C from the date of receipt. Upon reconstitution, it can be stored for 2-3 weeks at 2-8°C or for 12 months at -20°C or below. Avoid repeated freezing and thawing cycles.
Purification	Protein A affinity column

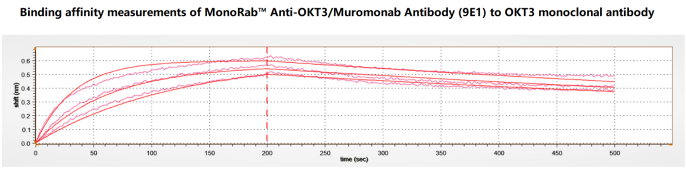
Isotype	Rabbit IgG, κ
Clonality	Monoclonal
Clone ID	9E1
Note	GenScript can customize this product per customer's request including product size, buffer components, etc.

Examples

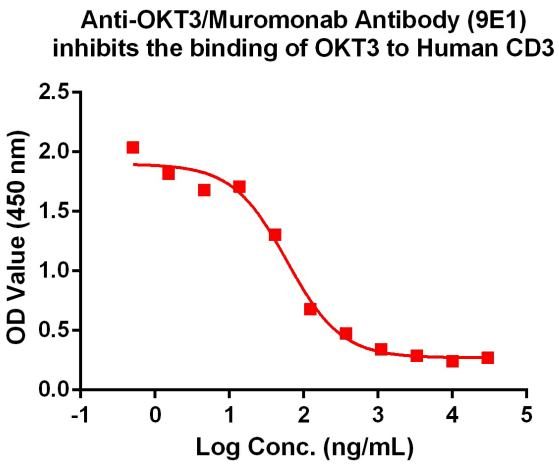


Anti-OKT3/Muromonab Antibodies inhibit the binding of OKT3 monoclonal antibody to Human CD3.

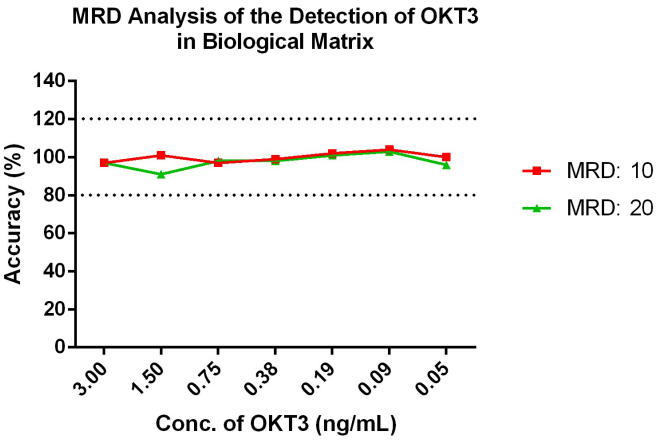
In this assay, the coating antigen was Human CD3 epsilon &CD3 delta Heterodimer Protein at a concentration of 1 μg/mL. Then both OKT3 and either the Anti-OKT3 monoclonal antibody Antibody (40D3) or (9E1) were added to the plate. The concentration of OKT3 was 50 ng/mL, and the Anti-OKT3 monoclonal antibody Antibody (40D3) or (9E1) was diluted in a 3-fold gradient from a concentration of 30 μg/mL. The secondary antibody was anti-Mouse IgG Fc Secondary Antibody (HRP).
MonoRab™ Anti-OKT3/Muromonab Antibody (40D3), mAb, Rabbit (GenScript, A02312) exhibited non-inhibitory properties, whereas MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit (GenScript, A02313) demonstrated significant inhibitory properties.



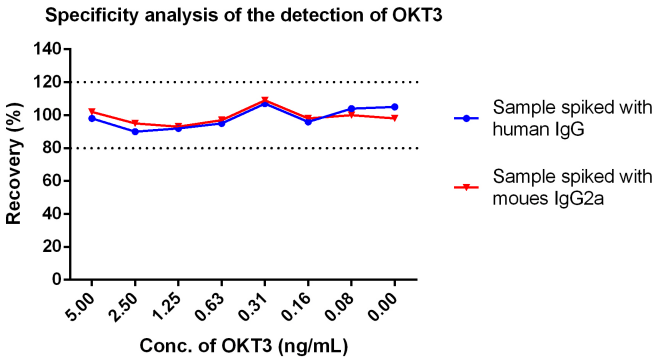
BLI (Biolayer interferometry) binding affinity measurements of MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit (GenScript, A02313) to OKT3 monoclonal antibody. OKT3 monoclonal antibody captured on MFC (Anti-Mouse IgG Fc) Probes can bind MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit with a dissociation constant (KD) of 1.10E-09M.



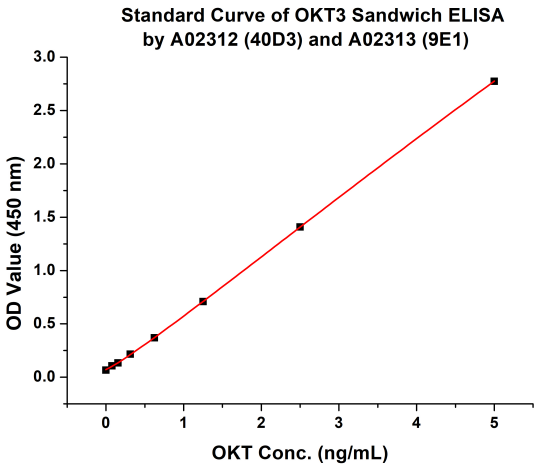
MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit (GenScript, A02313) inhibits the binding of OKT3 monoclonal antibody to Human CD3.
In this assay, the coating antigen was Human CD3 epsilon &CD3 delta Heterodimer Protein at a concentration of 1 μg/mL. Then both OKT3 and Anti-OKT3 monoclonal antibody Antibody (9E1) were added to the plate. The concentration of OKT3 was 50 ng/mL, and the Anti-OKT3 monoclonal antibody Antibody (9E1) was diluted in a 3-fold gradient from a concentration of 30 μg/mL. The secondary antibody was anti-Mouse IgG Fc Secondary Antibody (HRP).
MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit (GenScript, A02313) demonstrated significant inhibitory properties with an IC50 value of 59.5 ng/mL.



MRD Analysis of the Detection of OKT3 monoclonal antibody in Biological Matrix.
The MRD is the minimum dilution necessary for the detection of OKT3 monoclonal antibody in biological matrix with the least interference. Serum samples from cynomolgus monkey were serially diluted to determine the MRD of this assay, and the test result suggested that MRD was as 1:10.
In this ELISA assay, MonoRab™ Anti-OKT3/Muromonab Antibody (40D3), mAb, Rabbit (GenScript, A02312) was coated at a concentration of 1 μg/ml, and MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit (GenScript, A02313) conjugated with Biotin was used as a detection antibody at a concentration of 0.5 μg/mL.



Specificity analysis of the detection of OKT3 monoclonal antibody.
Samples of OKT3 monoclonal antibody at 8 concentrations were spiked with 100 ng/mL of human IgG or Mouse IgG2a. The test results demonstrated that the high concentration of human IgG or Mouse IgG2a did not interfere with the detection of OKT3 monoclonal antibody.
In this ELISA assay, MonoRab™ Anti-OKT3/Muromonab Antibody (40D3), mAb, Rabbit (GenScript, A02312) was coated at a concentration of 1 μg/ml, and MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit (GenScript, A02313) conjugated with Biotin was used as a detection antibody at a concentration of 0.5 μg/mL.



Standard Curve of OKT3 monoclonal antibody Sandwich ELISA by A02312 (40D3) and A02313 (9E1)
In this Sandwich ELISA assay, MonoRab™ Anti-OKT3/Muromonab Antibody (40D3), mAb, Rabbit (GenScript, A02312) was coated at a concentration of 1 µg/ml, and MonoRab™ Anti-OKT3/Muromonab Antibody (9E1), mAb, Rabbit (GenScript, A02313) conjugated with Biotin was used as a detection antibody at a concentration of 0.5 µg/mL.
GenScript can provide customized conjugation service for this product per customer's request.
In this assay, a four-parameter logistic curve fitting program was used to create a standard curve with the R-Square equal to 0.99998. The typicaldynamic range of the assay is 0.08 - 5 ng/mL.

Background

Target Background : OKT3 is a murine monoclonal anti-T cell antibody that is directed to CD3, a five-chain molecular complex found in association with the T cell receptor for antigen. OKT3 was the first monoclonal antibody to be used in organ transplantation and there has been extensive experience of its use both for preventing and treating rejection in organ transplantation. Muromonab-CD3, also known as Orthoclone OKT3, is an immunosuppressant medication prescribed to reduce acute rejection in individuals who have undergone organ transplants.

Synonyms : OKT3, Muromonab, Orthoclone OKT3, Muromonab-CD3, muromonab CD3, Anti-CD3, Anti-CD3 Monoclonal Antibody OKT3, MoAb OKT3, Monoclonal Antibody OKT3, MUROMONAB-CD3

Reference : Norman DJ, Leone MR. The role of OKT3 in clinical transplantation. Pediatr Nephrol. 1991 Jan;5(1):130-6. doi: 10.1007/BF00852870. PMID: 1827342.

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Manufacturer: Nanjing GenScript Biotech Co., Ltd. No. 28 Yongxi Road, Jiangning District, Nanjing, Jiangsu, China