

Rev03
Update: Dec,14,2021

DATASHEET

Insulin Antibody (6E9F1), mAb, Mouse

Cat. No.: A01715

Overview

Specificity	GenScript Insulin Antibody (6E9F1), mAb, Mouse detects human Insulin and slightly recognizes proinsulin, it has no cross-reactivity with C-peptide.
Host Species	Mouse
Immunogen	human recombinant Insulin expressed in yeast
Species Reactivity	Human. Reactivity to other species is not tested yet.
Conjugate	Unconjugated

Applications

Working concentrations for specific applications should be determined by the investigator. 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
ELISA Capture	1-10 µg/ml
ELISA Detection	0.05-0.2 µg/ml
Other applications	User-optimized

Recommended antibody pairing for sandwich immunoassay:

These antibodies are perfect choice for in vitro diagnostic assay development. And they are prepared for non-clinical research use only. The recommended pairs are based on our laboratory results.

Detection	Capture	
	A01715 (6E9F1)	A01716 (5A6A4)
A01715 (6E9F1)		-
A01716 (5A6A4)	+++	

The above data was achieved by Sandwich ELISA. ‘+’ means reaction and ‘-’ means no reaction. The number of ‘+’ represents reaction intensity.

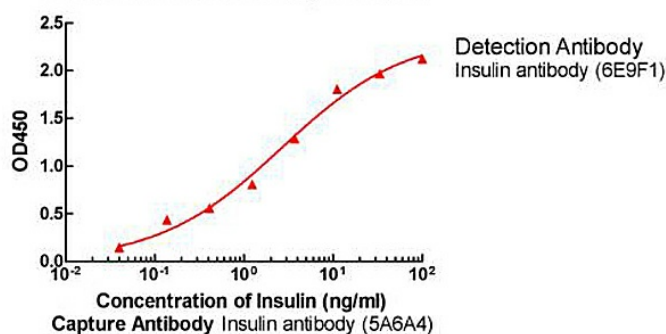
Properties

Form	Lyophilized
Storage Buffer	lyophilized with PBS, pH 7.4, containing 0.02% sodium azide. Products of 1mg and 5mg size are provided in liquid form.
Reconstitution	Reconstitute the lyophilized powder with deionized water (or equivalent) to an final concentration of 0.5 mg/mL.
Storage Instructions	The antibody is stable in lyophilized form if stored at -20°C or below. The reconstituted antibody can be stored for 2-3 weeks at 2-8°C. For long term storage, aliquot and store at -20°C or below. Avoid repeated freezing and thawing cycles.
Purification	Protein A affinity column
Isotype	Mouse IgG2a,k
Clonality	Monoclonal
Clone Id	6E9F1

Examples

Detection \ Capture	A01715 (6E9F1)	A01716 (5A6A4)
	A01715 (6E9F1)	A01716 (5A6A4)
A01715 (6E9F1)		-
A01716 (5A6A4)	+++	

Sandwich Immunoassay of Insulin

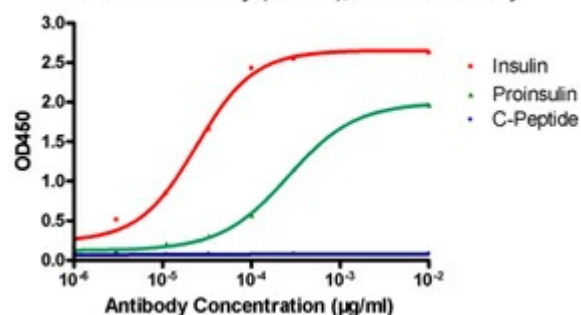


Antibody pairs analysis of Insulin monoclonal antibodies by Sandwich ELISA:

General conditions:

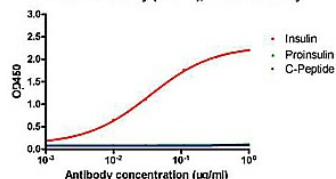
1. Microplate was coated with a capture antibody against insulin, followed by 3 washing cycles.
2. Incubation with insulin followed by 3 washing cycles.
3. Incubation with peroxidase conjugated detection antibody against insulin, followed by 3 washing cycles.
4. Colorimetric determination of bound peroxidase activity.

Insulin Antibody (6E9F1), cross reactivity

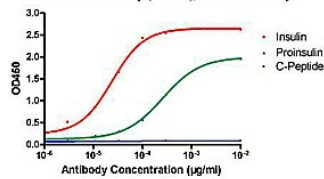


Cross reactivity analysis of Insulin Antibody (6E9F1), mAb, Mouse (GenScript, A01715) with insulin, proinsulin and C-Peptide.

Insulin Antibody (5A6A4), cross reactivity



Insulin Antibody (6E9F1), cross reactivity

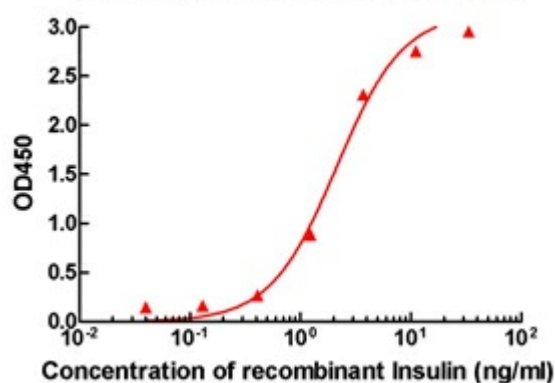


Cross-reactivity of Insulin monoclonal antibodies by Indirect ELISA:

General conditions:

1. Microplate was coated with insulin, proinsulin or C-peptide respectively, followed by 3 washing cycles.
2. Incubation with mouse anti-insulin antibody followed by 3 washing cycles.
3. Incubation with goat anti-mouse IgG conjugated to peroxidase, followed by 3 washing cycles.
4. Colorimetric determination of bound peroxidase activity.

Sandwich Immunoassay of Insulin



Sandwich ELISA analysis of antibody pairs using insulin monoclonal antibodies.

1. ELISA plate is coated with Insulin Antibody, mAb, Mouse (Clone 6E9F1, Cat. A01715)
2. Human Insulin at appropriate dilution is added into appropriate reaction wells.
3. After a period of incubation, HRP conjugated Insulin Antibody, mAb, Mouse (Clone 5A6A4, Cat. A01716) is added followed by proper period of incubation.
4. TMB substrate is added and developed at room temperature.
5. Stop the reaction with 1.0 N HCl and read the plate at 450nm.

Background

Target Background : Insulin is one of the major regulatory hormones of intermediate metabolism throughout the body. It regulates the cellular uptake, utilization, and storage of glucose, amino acids, and fatty acids and inhibits the breakdown of glycogen, protein, and fat. Proinsulin is the prohormone precursor to insulin made in pancreas. It is processed by a series of proteases to form mature insulin. Mature insulin has 35 fewer amino acids; 4 are removed altogether, and the remaining 31 form the C-Peptide. The C-Peptide is abstracted from the center of the proinsulin sequence; the two other ends (α and β chains) remain connected by disulfide bonds. Deficiency of insulin results in diabetes mellitus, one of the leading causes of morbidity and mortality in the general population. Insulin is also present in tumors of B cell origin such as insulinoma. GenScript Insulin Antibody (6E9F1), mAb, Mouse is produced from the hybridoma resulting from fusion of SP2/0-Ag14 myeloma and B-lymphocytes obtained from mouse immunized with human recombinant Insulin expressed in yeast.

Synonyms : ILPR antibody;

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.