COMPOUND DETAILS NNC0276-3000

Anti-InsR mAb G6



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Anti-InsR mAb G6



Insulin and insulin-like growth factor 1 (IGF1) are two closely related proteins and share similarities in both primary and tertiary structure. The homology is paralleled by similarities in the structures of their receptors, the insulin receptor (InsR) and the IGF1 receptor (IGF1R), which belong to the same family of receptor tyrosine kinases.

When studying the InsR and IGF1R is it therefore important to use specific antibodies that does not cross-react with both receptors. NNC0276-3000 is a highly specific InsR monoclonal antibody that lack cross-reactivity to the IGF1R. NNC0276-3000 is a human IgG1 monoclonal antibody directed against alfa-subunit of insulin receptor.

Also, unlike earlier monoclonal antibodies reported in the literature, this antibody shows cross-species reactivity to the extracellular domains of mouse, rat, pig, and human receptors, indicating that it binds conserved epitopes. Furthermore, the antibodies work well in several different assay formats and therefore provide a new tool to study InsR and IGF1R biology with translation across several species and experimental model systems.

Category	Tool antibodies
ID	NNC0276-3000
Amount pr. vial	100 ug

Calculated properties



The antibodies are of very high purity and have a minimal amount of aggregates as determined by SEC-HPLC. The isotype control (NNC9416-0015) is anti-trinitrophenol (aTNP), the isotype control standard used in most *in vitro;*and;*in vivo* applications since the antigen is not considered present in mammals.

Property	NNC0276-3000	Isotype control (NNC9416-0015)
Production host	HEK cells	CHO cells
Fc subtypr	IgG1	hzIgG1 Gm(3)
Antigen	Human insulin receptor	2,4,6-trinitrophenol (TNP)
Original species	Human	-
Buffer composition	PBS, pH7.4 with 0.02% Na-azide	PBS, pH7.4 with 0.02% Na-azide
Concentration	0.98 mg/mL	1.05 mg/mL
Theoretical mass	144078.1 Da	145493.6 Da
Endotoxin	<0.06 EU/mg	<0.06 EU/mg

CHO: Chinese hamster ovary; EU: endotoxin unit; HEK: human embryonic kidney; PBS: phosphate buffered saline; SEC: size exclusion chromatography.

Calculated and experimental properties of NNC0276-3000 and the isotype control (NNC9416-0015).

In vitro data

NNC0276-3000 displays cross-species reactivity to the extracellular domains of mouse, rat, pig, and human insulin receptors (other species not tested), indicating that it binds conserved epitopes. Furthermore, the antibody works well in several different assay formats, see the table below.

Application	Suitability
WB (reduced and non-reduced)	+
Flow cytometry	+++
ELISA (tested as capture Ab in sandwich ELISA)	+++
Immunocytochemistry	+++
IP	+++
Tissue IP	+++
Immunohistrochemistry on frozen section	Not tested
Species reactivity	
Human, mouse, rat, pig (other species not tested)	

ELISA: enzyme-linked immunosorbent assay; IP: immunoprecipitation; WB: Western blot



Reference Compound

The isotype control to NNC0276-3000 is NNC9416-0015. Please indicate in the 'Purpose' field when you order NNC0276-3000 if you would like to have NNC9416-0015 included in your shipment.

Compound handling instructions

We recommend to store the antibodies at minus 80C. Four weeks stability at 4C have been confirmed.

References

1. Ørstrup LH et al.
Cross-species reactive monoclonal antibodies against the extracellular domains of the insulin receptor and IGF1 receptor

J Immunol Methods. 2019 Feb;465:20-26

