

Anti-Rat IGF-1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10842**Specification**

Anti-Rat IGF-1 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB |
| Primary Accession | P08025 |
| Reactivity | Rat |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Calculated MW | 17079 |

Anti-Rat IGF-1 Antibody - Additional Information**Gene ID** 24482

Positive Control
Application & Usage

Recombinant rat IGF-I
The antibody can be used in Western Blot analysis (1-4 µg/ml). However, the optimal conditions should be determined individually. Recombinant rat IGF-1 can be used as a positive control.

Other Names

IGF-1, IGF 1, Insulin like growth factor-1, Insulin like growth factor 1, Somatomedin C

Target/Specificity

IGF-I

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) affinity purified rabbit anti-IGF-1 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 5mM EDTA and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Anti-Rat IGF-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-Rat IGF-1 Antibody - Protein Information

Name Igf1

Synonyms Igf-1

Function

The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity. May be a physiological regulator of [1-14C]- 2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. Stimulates glucose transport in bone-derived osteoblastic (PyMS) cells and is effective at much lower concentrations than insulin, not only regarding glycogen and DNA synthesis but also with regard to enhancing glucose uptake. May play a role in synapse maturation. Ca(2+)-dependent exocytosis of IGF1 is required for sensory perception of smell in the olfactory bulb. Acts as a ligand for IGF1R. Binds to the alpha subunit of IGF1R, leading to the activation of the intrinsic tyrosine kinase activity which autophosphorylates tyrosine residues in the beta subunit thus initiating a cascade of down-stream signaling events leading to activation of the PI3K-AKT/PKB and the Ras- MAPK pathways. Binds to integrins ITGA5:ITGB3 and ITGA6:ITGB4. Its binding to integrins and subsequent ternary complex formation with integrins and IGFR1 are essential for IGF1 signaling. Induces the phosphorylation and activation of IGFR1, MAPK3/ERK1, MAPK1/ERK2 and AKT1 (By similarity). As part of the MAPK/ERK signaling pathway, acts as a negative regulator of apoptosis in cardiomyocytes via promotion of STUB1/CHIP-mediated ubiquitination and degradation of ICER-type isoforms of CREM (PubMed:20724525).

Cellular Location

Secreted {ECO:0000250|UniProtKB:P05017}.

Anti-Rat IGF-1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Rat IGF-1 Antibody - Images

Anti-Rat IGF-1 Antibody - Background

IGF-I (insulin-like Growth Factor-I) is a polypeptide growth factor that stimulates the proliferation of a wide range of cell types including muscle, bone, and cartilage tissue. Rat IGF-I is a 7.69 kDa protein.