

## Recombinant Insulin-like Growth Factor-1 (IGF-1) Antibody

Rabbit Monoclonal Antibody [Clone IGF1/13900R]

| Catalog No       | Format                                       | Size   |
|------------------|----------------------------------------------|--------|
| 3479-RBM11-P0    | Purified Ab with BSA and Azide at 200ug/ml   | 20 ug  |
| 3479-RBM11-P1    | Purified Ab with BSA and Azide at 200ug/ml   | 100 ug |
| 3479-RBM11-P1ABX | Purified Ab WITHOUT BSA or Azide at 1.0mg/ml | 100 ug |

| Applications               | Tested Dillution | Note                                                                                                                                                                              |
|----------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunohistochemistry (IHC) | 1-2ug/ml         | 30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes |

### Product Details

|                        |                                |
|------------------------|--------------------------------|
| Clone                  | IGF1/13900R                    |
| Immunogen              | Recombinant human IGF1 protein |
| Host                   | Rabbit                         |
| Clonality              | Monoclonal                     |
| Isotype / Light Chain  | IgG / Kappa                    |
| Mol. Weight of Antigen | 21.84kDa                       |
| Cellular Localization  | Secreted                       |
| Species Reactivity     | Human                          |

*\*Optimal dilution for a specific application should be determined.*

### Product Images for Recombinant Insulin-like Growth Factor-1 (IGF-1) Antibody

### Specificity & Comments

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 (PubMed:21076856, PubMed:24132240). Ca(2+)-dependent exocytosis of IGF1 is required for sensory perception of smell in the olfactory bulb (By similarity). 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 ITGAV: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 (PubMed:19578119, PubMed:22351760, PubMed:23243309, PubMed:23696648). 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 (By similarity).

### Supplied As

200ug/ml of Ab produced in a mammalian-based expression system. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

### Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.