Datasheet for ABIN6255780

# anti-IGF1R antibody (pTyr1165, pTyr1166)

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## Overview

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|---|---|
| Quantity: | 100 µL |
| Target: | IGF1R |
| Binding Specificity: | pTyr1165, pTyr1166 |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This IGF1R antibody is un-conjugated |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC) |

## Product Details

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| Immunogen: | A synthesized peptide derived from human IGF1 Receptor around the phosphorylation site of Tyr1165/Tyr1166. |
| Isotype: | IgG |
| Specificity: | Phospho-IGF1 Receptor (Tyr1165/Tyr1166) Antibody detects endogenous levels of IGF1 Receptor only when phosphorylated at Tyrosine 1165/Tyrosine 1166. |
| Predicted Reactivity: | Bovine,Rabbit,Dog,Chicken,Xenopus |
| Purification: | The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns. |

## Target Details

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| Target: | IGF1R |
| Alternative Name: | IGF1R (IGF1R Products) |
| Background: | Description: Receptor tyrosine kinase which mediates actions of insulin-like growth factor 1 (IGF1). Binds IGF1 with high affinity and IGF2 and insulin (INS) with a lower affinity. The activated IGF1R is involved in cell growth and survival control. IGF1R is crucial for tumor transformation and survival of malignant cell. Ligand binding activates the receptor kinase, leading to receptor autophosphorylation, and tyrosines phosphorylation of multiple substrates, that function as signaling adapter proteins including, the insulin-receptor substrates (IRS1/2), Shc and 14-3-3 proteins. Phosphorylation of IRSs proteins lead to the activation of two main signaling pathways: the PI3K-AKT/PKB pathway and the Ras-MAPK pathway. The result of activating the MAPK pathway is increased cellular proliferation, whereas activating the PI3K pathway inhibits apoptosis and stimulates protein synthesis. Phosphorylated IRS1 can activate the 85 kDa regulatory subunit of PI3K (PIK3R1), leading to activation of several downstream substrates, including protein AKT/PKB. AKT phosphorylation, in turn, enhances protein synthesis through mTOR activation and triggers the antiapoptotic effects of IGFIR through phosphorylation and inactivation of BAD. In parallel to PI3K-driven signaling, recruitment of Grb2/SOS by phosphorylated IRS1 or Shc leads to recruitment of Ras and activation of the ras-MAPK pathway. In addition to these two main signaling pathways IGF1R signals also through the Janus kinase/signal transducer and activator of transcription pathway (JAK/STAT). Phosphorylation of JAK proteins can lead to phosphorylation/activation of signal transducers and activators of transcription (STAT) proteins. In particular activation of STAT3, may be essential for the transforming activity of IGF1R. The JAK/STAT pathway activates gene transcription and may be responsible for the transforming activity. JNK kinases can also be activated by the IGF1R. IGF1 exerts inhibiting activities on JNK activation via phosphorylation and inhibition of MAP3K5/ASK1, which is able to directly associate with the IGF1R.<br>Gene: IGF1R |
| Molecular Weight: | 90,155kDa |
| Gene ID: | 3480 |
| UniProt: | P08069 |
| Pathways: | RTK Signaling, Regulation of Hormone Metabolic Process, Regulation of Hormone Biosynthetic Process, Autophagy |

## Application Details

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|---|---|
| Application Notes: | WB 1:500-1:2000, IHC 1:50-1:200, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000 |
| Restrictions: | For Research Use only |

## Handling

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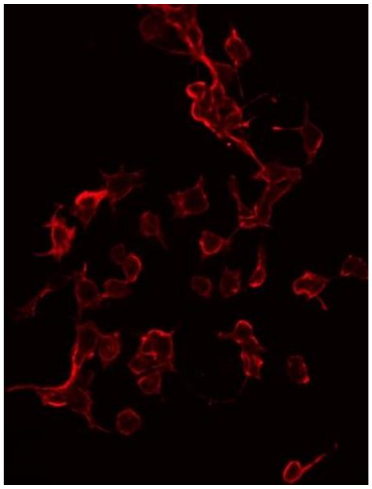
|---|---|
| Format: | Liquid |
| Concentration: | 1 mg/mL |
| Buffer: | Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol. |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | -20 °C |
| Storage Comment: | Store at -20 °C. Stable for 12 months from date of receipt. |
| Expiry Date: | 12 months |

## Publications

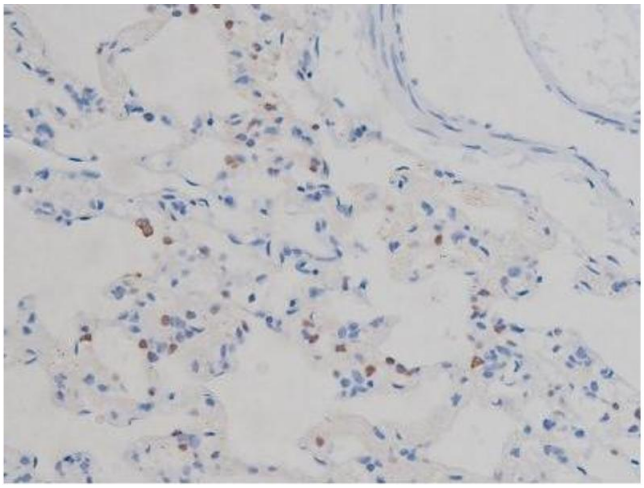
| | |
|---|---|
| Product cited in: | Geng, Wang, Zhu, Xie, Li, Wu, Zhu, Jiang, Yang, Li, Chen, Wang, Meng, Zhu, Wu, Huang, Zhong: " Curcumin attenuates BPA-induced insulin resistance in HepG2 cells through suppression of JNK/p38 pathways." in: **Toxicology letters**, Vol. 272, pp. 75-83, (2017) (PubMed). |

## Images



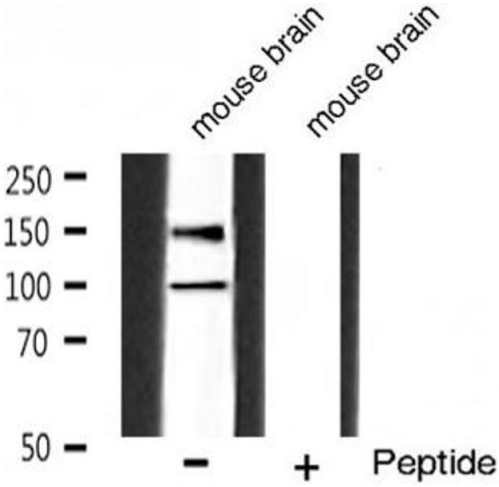
**Immunofluorescence (fixed cells)**

**Image 1.** ABIN6267335 staining 293 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



## Immunohistochemistry

**Image 2.** ABIN6267335 at 1/200 staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.




## Western Blotting

**Image 3.** Western blot analysis of IGF1R phosphorylation expression in mouse brain tissue lysates,The lane on the right is treated with the antigen-specific peptide.

Please check the product details page for more images. Overall 4 images are available for ABIN6255780.