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Product Information

Monoclonal Anti-Insulin-like Growth Factor-II
Clone 122404
produced in rat, purified immunoglobulin

Catalog Number **I9534**

Product Description

Monoclonal Anti-Insulin-like Growth Factor-II (Igf2; rat IgG2A isotype) is purified from a hybridoma produced by the fusion of mouse myeloma cells and B cells from a rat immunized with recombinant mouse Insulin-like Growth Factor-II (GeneID 16002) expressed and purified from *Escherichia coli*. The antibody is purified by Protein G affinity chromatography.

Monoclonal Anti-Insulin-like Growth Factor-II recognizes mouse Insulin-like Growth Factor-II. Applications include immunoblotting and ELISA. In capture ELISA, less than 6% cross-reactivity was observed with rhIGF-IR and no cross-reactivity was observed with rhIGF-I, rmIGF-I, and rhIGF-II. In immunoblotting, 100% cross-reactivity was observed with rhIGF-II.

Insulin-like growth factor-II (also known as multiplication stimulating activity or MSA) and insulin-like growth factor I (IGF-I) belong to the family of insulin-like growth factors, which are structurally homologous to proinsulin. Mature IGF-I and IGF-II are highly conserved and share ~70% amino acid sequence identity. Mouse Igf2, a 67 amino acid protein, has a predicted molecular mass of ~7.4 kDa. Mouse and human IGF-II share 91% sequence identity.

Insulin-like growth factor-II has autocrine, paracrine, and endocrine functions. It is a potent mitogenic growth factor that mediates growth-promoting activities in embryonic development. IGF-II binds the IGF-II receptor with high affinity.

IGF-I and IGF-II are expressed in many tissues and cell types. IGF-II is mitogenic for a variety of cultured cells including human or chicken fibroblasts, mouse 3T3 cells, normal rat kidney cells, and MCF-7 human breast carcinoma cells.[1]

Reagent

Lyophilized from 0.2 μm-filtered solution in phosphate buffered saline containing carbohydrates.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

To one vial of lyophilized powder, add 1 mL of 0.2 μm filtered PBS to produce a 0.5 mg/mL stock solution. If aseptic technique is used, no further filtration should be necessary for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at –20 °C. Reconstituted product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing, or storage in frost-free freezers, is not recommended.

Product Profile

Immunoblotting: a working concentration of 1-2 μg/mL is recommended to detect mouse Igf2. The detection limit for recombinant mouse Igf2 is approximately 25 ng/lane under non-reducing and reducing conditions.

Capture ELISA: this product can be used as a capture reagent in a mouse Igf2 ELISA in combination with biotinylated, mouse Igf2 affinity purified polyclonal detection antibody. Using plates coated with 100 μL/well of the capture antibody at 4 μg/mL, in combination with 100 μL/well of the detection antibody at 200 ng/mL, an ELISA for sample volumes of 100 μL can be obtained. To arrive at the optimal dose range for this ELISA, set up a two-fold dilution series of the protein standard starting with 4 ng/mL.

Note: In order to obtain the best results using various techniques and preparations, it is recommended to determine the optimal working dilutions by titration.

Endotoxin: <0.1 EU/μg antibody as determined by the LAL method.

References

1. Zumstein, P., et al., J. Biol. Chem., **262**, 11252 (1987).

DXP,PHC,TMS 06/16-1