Mouse IGFBP-2 / IGFBP2 Protein (Fc Tag)

Catalog Number: **51124-M02H**

General Information

Gene Name Synonym:

AI255832; IBP-2; Igfbp-2; mIGFBP-2

Protein Construction:

A DNA sequence encoding the mouse Igfbp2 (NP_032368.2) (Met1-Gln305) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-activity:

Measured by its ability to inhibit the biological activity of IGFII on MCF7 human breast adenocarcinoma cells. The ED_{50} for this effect is typically 0.05-0.4 μg/mL in the presence of 14 ng/mL human IGFII.

Endotoxin:

< 1.0 EU per μg protein as determined by the LAL method.

Predicted N terminal: Glu 35

Molecular Mass:

The recombinant mouse Igfbp2 consists 512 amino acids and predicts a molecular mass of 56.6 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

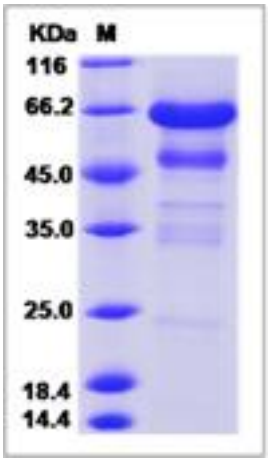
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IGFBP-2, also known as IGFBP2, is a insulin-like growth factor-binding protein (IGFBP). IGFBPs prolong the half-life of the IGFs , control bioavailability, activity, and distribution of insulin-like growth factor (IGF) through high-affinity IGFBP/IGF complexes. Six high-affinity IGF-binding proteins (IGFBP-1 to -6) have been identified. The six IGFBPs are structurally related but encoded by distinct genes. IGFBPs have a high affinity for IGFs. Some members of the IGFBP family have been consistently shown to inhibit IGF actions by preventing them from gaining access to the IGF receptors, while others potentiate IGF actions by facilitating the ligand-receptor interaction. IGFBP-2 is overexpressed in many malignancies and is often correlated with an increasingly malignant status of the tumor, pointing to a potential involvement of IGFBP-2 in tumorigenesis. It contains 1 IGFBP N-terminal domain and 1 thyroglobulin type-1 domain. It inhibits IGF-mediated growth and developmental rates.

References

1.Han VK, et al. (1996) The expression of insulin-like growth factor (IGF) and IGF-binding protein (IGFBP) genes in the human placenta and membranes: evidence for IGF-IGFBP interactions at the feto-maternal interface. J Clin Endocrinol Metab. 81(7): 2680-93.
2.Binkert C, et al. (1989) Cloning, sequence analysis and expression of a cDNA encoding a novel insulin-like growth factor binding protein (IGFBP-2) . EMBO J. 8(9):2497-502.
3.Wolf E, et al. (2000) Effects of IGFBP-2 overexpression in vitro and in vivo. Pediatr Nephrol. 14 (7):572-8.