

Product Information



IGFBP5 Blocking Peptide

Catalog No. 10008206

Insulin-like growth factor binding protein 5 (IGFBP5) is a secreted protein that binds IGF-1 and restricts it from accessing its cell-surface receptor (IGF-1R). This aids in regulation of cell growth, differentiation, and apoptosis.¹ IGFBP5 also displays IGF-1 independent transactivational activity in the nucleus.² Some tissues and cell types with higher levels of this protein include kidney, heart, placenta, and skeletal cells.³ Expression has also been reported in a variety of cancers, including mammary gland and neuroblastoma.^{1,4} IGFBP5 (272 amino acids) has a calculated molecular weight of 30.6 kDa. Reported glycosylation and phosphorylation sites may explain the band migration to 33 kDa.^{1,5} Cayman's IGFBP5 polyclonal antibody is directed against a synthetic peptide sequence that partially overlaps the IGFBP5 region identified as a nuclear localization signal.²

Laboratory Procedures

This vial contains 200 µg peptide in 200 µl TBS, pH 7.4, containing 0.1% BSA and 0.02% sodium azide. The IGFBP5 blocking peptide (human IGFBP5 amino acids 192-206) can be used in conjunction with Cayman's IGFBP5 Polyclonal Antibody (Catalog No. 10008207) to block protein-antibody complex formation during immunochemical analysis of IGFBP5.

Store this peptide solution at -20°C. It will be stable for at least two years. To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the IGFBP5 Polyclonal Antibody (Catalog No. 10008207) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 40 µl of antibody and 40 µl of peptide.*
2. Incubate for one hour at room temperature with occasional mixing.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

References

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2. Zhao, Y., Yin, P., Bach, L.A., *et al.* Several acidic amino acids in the N-domain of insulin-like growth factor-binding protein-5 are important for its transactivation activity. *J. Biol. Chem.* **281(20)**, 14184-14191 (2006).
3. Shimasaki, S., Shimonaka, M., Zhang, H.-P., *et al.* Identification of five different insulin-like growth factor binding proteins (IGFBPs) from adult rat serum and molecular cloning of a novel IGFBP-5 in rat and human. *J. Biol. Chem.* **266(16)**, 10646-10653 (1991).
4. Tanno, B., Negroni, A., Vitali, R., *et al.* Expression of insulin-like growth factor-binding protein 5 in neuroblastoma cells is regulated at the transcriptional level by c-Myb and B-Myb *via* direct and indirect mechanisms. *J. Biol. Chem.* **277(26)**, 23172-23180 (2002).
5. Pampusch, M.S., Xi, G., Kamanga-Sollo, E., *et al.* Production of recombinant porcine IGF-binding protein-5 and its effect on proliferation of porcine embryonic myoblast cultures in the presence and absence of IGF-I and Long-R3-IGF-I. *J. Endocrinol.* **185**, 197-206 (2005).

Related Product

IGFBP5 Polyclonal Antibody - Cat. No. 10008207

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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