

Product Information



Caveolin 1/3 Blocking Peptide

Catalog No. 300830

Caveolin is an integral membrane protein and is the principle component of caveolea. Currently, 3 isoforms of Caveolin (namely, Caveolin-1, Caveolin-2, and Caveolin -3), which differ in their primary sequence and tissue distribution, have been cloned.^{1,2,3} Caveolin-1, cloned from a variety of species, has 178 amino acids with a molecular mass of approximately 21,000. Caveolin-3 (rat) contains 151 amino acids with a predicted molecular mass of 17,404.³ Based on protein sequence homology, rat Caveolin-1 and Caveolin-3 are approximately 65% identical. Caveolin-1 is found in adipocytes, endothelial cells, and fibroblasts, whereas Caveolin-3 is found predominately in muscle tissue.³

Laboratory Procedures

This vial contains 200 µg of lyophilized peptide derived from the rat Caveolin 3 sequence (amino acids 19-41; CKEIDLVRDPRKINVEDIVKVF)³. This peptide was used as an antigen for production of the Caveolin 1/3 Polyclonal Antibody (Catalog No. 100830) and can be used in conjunction with this antibody to block protein-antibody complex formation during immunohistochemical analysis for caveolin.

Reconstitute the lyophilized peptide with 200 µl of PBS or distilled water. 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 Caveolin 1/3 Polyclonal Antibody (Catalog No. 100830) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 20 µl of antibody and 20 µl of peptide.*
2. Incubate for 1 hour at room temperature with occasional mixing prior to further dilution and application of the mixture to the immunoblot.
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

1. Tang, Z.L., Scherer, P.E., Lisanti, M.P. The primary sequence of murine caveolin reveals a conserved consensus site for phosphorylation by protein kinase C. *Gene* **147**, 299-300 (1994).
2. Scherer, P.E., Okamoto, T., Nishimoto, I., *et al.* Identification, sequence, and expression of caveolin-2 defines a caveolin gene family. *Proc. Natl. Acad. Sci. USA* **93**, 131-135 (1996).
3. Tang, Z.L., Scherer, P.E., Okamoto, T., *et al.* Molecular cloning of caveolin-3, a novel member of the caveolin gene family expressed predominantly in muscle. *J. Biol. Chem.* **271**, 2255-2261 (1996).

Related Product

Caveolin 1/3 Polyclonal Antiserum - Cat. No. 100830

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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

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