Recombinant Human/Murine Wnt5a

Keep Frozen Until Use

Catalog Number: rhmW5aL

Source: Chinese Hamster Ovary (CHO) cell line-derived

Sequences: Gln38-Lys380

Synonyms: Protein Wnt-5a; wingless-type MMTV integration site family, member 5A; WNT5A

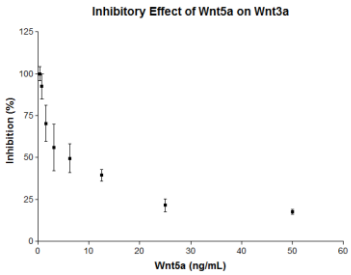
Purity: 75 % evaluated by SDS-PAGE under reducing conditions

Predicted M.W.: 38 kDa

Actual M.W.: 45 kDa evaluated by SDS-PAGE under reducing conditions

Description

The WNT gene family consists of structurally related genes that encode secreted signaling proteins. These proteins have been implicated in oncogenesis, adipogenesis, etc. and in several other developmental processes, including regulation of cell fate and patterning during embryogenesis. Protein Wnt5a is a protein that is encoded by the WNT5A gene. This gene is a member of the non-canonical WNT gene family. Mature mouse Wnt5a is 100% identical in amino acids to mature human Wnt5a after being secreted from expression cells. Wnt5a protein can inhibit or activate TCF-based Wnt signaling.



This protein was purified using a combination of ion exchange, affinity column with Wnt signaling inhibitor-bound sepharose beads, and followed by gel filtration.

Concentration 40-100 µg/mL. Please refer to the concentration on the label of each tube for actual concentration. Optimal concentrations for each application should be determined.

Activity: The inhibitory activity of Wnt5a on the canonical Wnt pathway has been measured using TCF-based Wnt reporter stable cell line (Catalog: WRNIH3T3A) stimulated by mouse Wnt3a. IE_{50} of Wnt5a is about 50 - 100 ng/mL in the presence of 1 -2 ng/mL of mouse Wnt3a.

Formulation Phosphate buffer pH 7.4-7.6, CHAPS, 0.1% BSA.

Handling and Storage

Keep the protein frozen until use. Freeze aliquots at - 20°C or below after thawed. The unused solution can be refrozen/thawed 3 to 5 times without losing activity significantly.

Mix the protein by pipetting up and down only but do not use vortexer.

Wnt control buffer (Phosphate buffered saline pH 7.4-7.6, CHAPS, 0.1% BSA) can serves as a control.

Reference

Bauer M., et al. WNT5A Encodes Two Isoforms with Distinct Functions in Cancers. PLoS ONE 8(11): e80526.

Janda CY., et al. Structural basis of Wnt recognition by Frizzled. Science. 2012; 337(6090): 59–64.

Milkels AJ, et al. Purified Wnt5a Protein Activates or Inhibits β-Catenin–TCF Signaling Depending on Receptor Context. PLoS Biol, 4: e115, 2006

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