

## Recombinant Human/Murine Wnt5a

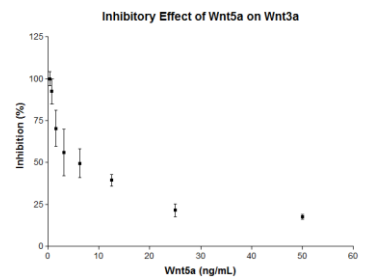
**Keep Frozen  
Until Use**

<b>Catalog Number:</b>	rhmW5aL
<b>Source:</b>	Chinese Hamster Ovary (CHO) cell line-derived
<b>Sequences:</b>	Gln38-Lys380
<b>Synonyms:</b>	Protein Wnt-5a; wingless-type MMTV integration site family, member 5A; WNT5A
<b>Purity:</b>	75 % evaluated by SDS-PAGE under reducing conditions
<b>Predicted M.W.:</b>	38 kDa
<b>Actual M.W.:</b>	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** 10-100 µg/mL. Please refer to the concentration on the label of each tube

**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<sub>50</sub> 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. Refreeze aliquots at 20°C or below. The unused solution can be refrozen.

To treat cells, dilute the protein solution at least 500 times in medium. Diluted Wnt proteins in medium or phosphate buffer are unstable and can only be stored at 4°C for one to few days.

Mix the protein by pipetting up and down or rocking the plates but not by vortexing.

Wnt control buffer (Phosphate buffer pH 7.4-7.6, CHAPS, 0.1% BSA) serves as 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  $\beta$ -Catenin–TCF Signaling Depending on Receptor Context. PLoS Biol, 4: e115, 2006