

## **Recombinant Murine Wnt3a**

Catalog Number: rmW3aL

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

**Sequences:** Ser19-Lys352

Synonyms: Protein Wnt-3a; wingless-type MMTV integration site family, member 3A; WNT3A

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

Predicted M.W.: 37 kDa

Actual M.W.: 41 kDa evaluated by SDS-PAGE under reducing conditions

**Description** Protein Wnt-3a is a protein that is encoded by the WNT3A gene. 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. This gene is a member of the WNT gene family.

Mouse Wnt3a shows 96% amino acid identity to human Wnt3a protein.

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

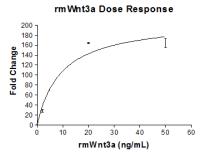
filtration.

**Concentration** 40 - 80 μg/mL. Please refer to the concentration on the label of each vial

Activity: Wnt3a activity has been measured using TCF-based Wnt reporter stable cell line

(Catalog: WRHEK293A-HWR). 10 ng/mL of Wnt3a (Lot: 02DEC2015) generate 100-fold increase of luciferase activity compared to control (buffer without Wnt3a).

EC<sub>50</sub> is about 6 ng/mL.



Formulation

Phosphate buffer pH 7.4-7.6, 1% CHAPS, 0.1% BSA.

**Handling and Storage** 

Keep the protein frozen until use. Refreeze aliquots at 20 $^{\circ}$ C or below. The unused solution can be refrozen without losing activity.

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

To treat cells, dilute the protein solution at least 500 times in culture medium and use it immediately. Do not store culture medium-diluted protein solution.

Wnt dilution buffer (Phosphate buffered saline pH 7.4-7.6, 1% CHAPS, 0.1% BSA) can serves as a control.

Reference

Desheng Lu and Dennis A. Carson. Inhibition of Wnt signaling and cancer stem cells. Oncotarget 2011; 2: 587 – 587

Taranjit S. Gujral, et al. A Noncanonical Frizzled2 Pathway Regulates Epithelial-Mesenchymal Transition and Metastasis. Cell 2014; 159: 844–856

Michael Kahn. Can we safely target the WNT pathway? Nature Reviews Drug Discovery 2014: 13: 513–532