

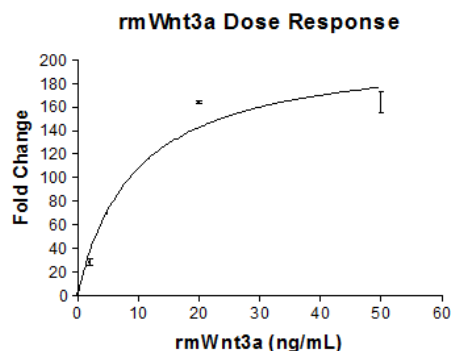
Keep Frozen
Until Use

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 Sepharose beads, and followed by gel filtration.



Concentration

40 - 80 µg/mL. Please refer to the concentration on the label of each vial for actual concentration. Optimal concentrations for each application should be determined.

Endotoxin Level

< 0.1 EU/mL Tested using LAL method

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). EC₅₀ is about 6 ng/mL.

For organoid culture: 100 ng/mL for colonic organoids; 25 - 50 ng/mL for small intestine, primary hepatocyte, and salivary gland organoids; 150 ng/mL supports single stem cell-derived organoids.

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 serve as a control.

Reference

Saito-Diaz K., et al. APC inhibits ligand-independent Wnt signaling by the clathrin endocytic pathway. *Developmental Cell* 2018; 44(5):566-581.

Kun Zhang, et al. In Vitro Expansion of Primary Human Hepatocytes with Efficient Liver Repopulation Capacity. *Cell Stem Cell*, 2018; 23, 1-14