Product Specification Sheet

□ Cat # WNT511-A | Rabbit Anti-Human WNT5a antibody, affinity purified | **SIZE**: 100 ug

The WNT gene family consists of structurally related genes that encode secreted signaling lipid modified glycoproteins. These proteins have been implicated in oncogenesis and in several developmental processes, including regulation of cell fate and patterning during embryogenesis. This gene is a member of the WNT gene family. The WNT5A is highly expressed in the dermal papilla of depilated skin. It encodes a protein showing 98%, 98%, and 87% amino acid identity to the mouse, rat and the xenopus Wnt5a protein, respectively. Wnts, specifically Wnt5a, have also been positively correlated and implicated in inflammatory diseases such as rheumatoid arthritis, tuberculosis, and atherosclerosis.

Wnt-5a is implicated in various types of cancer and has complex roles. It acts as a tumor suppressor for mammary, B-cell, colon, and uroepithelial cancer cells but is up-regulated in melanomas, where expression levels correlate with severity of metastasis. Like other developmental growth factors Wnt-5a has diverse roles in development. Their functions span from early anterior-posterior development and gastrulation movements to maintaining hematopoietic stem cell population, lung morphogenesis, and limb outgrowth. Mature Wnt-5a is a 49 kDa protein that shares 99% amino acid identity in mouse, rat and human.

Source of Antigen or Antibodies

Uniprot: P41221

Host: Rabbit

Clonality: Polyclonal

Purification: Ammonium sulfate followed by peptide affinity purification

Immunogen: Synthetic peptide derived from Human WNT5a conjugated to KLH.

Species Reactivity: Human

Cross reactivity: The peptide region used as an immunogen has 100% homology across various species including but not limited to Mouse, Rat, Monkey, Dog, Pig, and Goat. Reactivity has only been confirmed in-house with human and mouse samples.

Subcellular Location: Extracellular region or secreted

Alternative name: Protein Wnt-5a

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (**ADI cat#20320)**

Negative Control: Non-immune Rabbit IgG (**ADI cat# 20009-1**).

Form & Storage of Antibodies

Affinity pure IgG
□ Solution

Concentration: 0.5 mg/ml Volume: 200 ul
Supplied in PBS pH 7.4 + 0.1% BSA

□ **Lyophilized powder**
Reconstitute powder in 200 ul distilled water to 0.5 mg/ml

Storage:

Short-term: 4°C for 1 month

Long-term: at –20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions.

Recommended Usage

ELISA: Assay dependent concentration. Typically 0.1-2 ug/ml for capture or detection antibody.

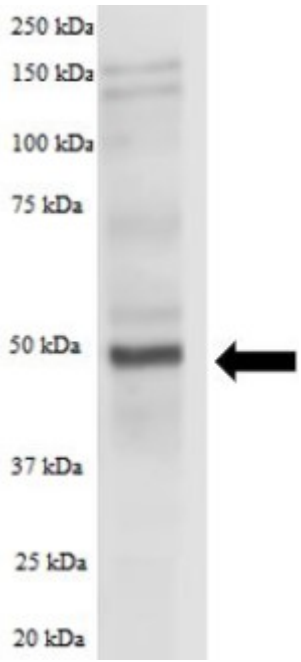
Western Blotting: 0.5-2 ug/ml
Theoretical band size: 36 kDa
Observed Band size: ~49 kDa. Due to multiple post-translational modifications the band size observed may be larger than the theoretical band size

*Above concentrations are a suggestion and user's must optimize assay based on their conditions. Antibody may work in other applications such as Flow Cytometry, ICC, or IP. These methods have not been tested by ADI.

**This product is for In vitro research use only.*

Related items available from ADI

Catalog#	Description
WNT111-A	Rabbit Anti-Human Proto-oncogene WNT-1 antibody, affinity purified



25 ug of a Mouse Lung lysate was heated for 5 minutes at 95ºC then loaded into a 10% SDS-PAGE gel. The gel was run for ~1 hour and 30 minutes at 100V and transferred to a 0.2 um nitrocellulose membrane using the mixed MW settings on a Transblot Turbo (Biorad). The blot was blocked for 1 hour at room temperature with 1% Fish plasma (Aquablock, EastCoastBio). **WNT511-A** was diluted with TBST+0.1% BSA to 1 ug/ml and incubated overnight at 4ºC. Blot was washed with TBS-T 3 times for 5 minutes each. Goat anti-rabbit IgG HRP (**ADI cat#20320**) diluted 1:10,000 (50 ng/ml) in TBST+0.1% BSA and incubated for 1 hour at room temperature. The blot was washed with TBS-T 3 times for 5 minutes each. The blot was incubated with ADI Femto ECL substrate (**ADI cat#80210**) for 5 minutes then imaged on a LI-COR C-DIGIT at high sensitivity settings. Specific band is observed at ~49 kDa.

Western Blot controls: Positive results were detected in Mouse lung lysate and A431 cell lysates.