

# Human Wnt Surrogate-Fc Fusion Protein

Cat. No. WNT-HM23A

## Description

<b>Source</b>	Recombinant Human Wnt Surrogate-Fc Fusion Protein is expressed from HEK293 with hFc tag at the C-Terminus.
<b>Molecular Weight</b>	The protein has a predicted MW of 58.50 kDa. Due to glycosylation, the protein migrates to 60-75 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1 EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	>95% as determined by Bis-Tris PAGE

## Formulation and Storage

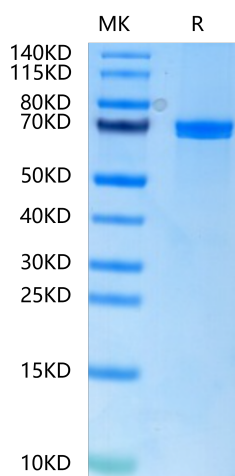
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Wnt-3a is regarded as an activator of the canonical Wnt signaling pathway. This activator is expressed in the dorsal midline region and is responsible for spinal cord development. In addition, Wnt-3a plays a regulatory role in autophagy, apoptosis, and regeneration of neurons, neurogenic inflammation and axon regeneration. Wnt-3a promotes the beta-catenin/Tcf pathway which is tumor inducing and can cause cancer when expressed in particular cell populations. It is also one of the most commonly used cytokines for organoid construction.

## Assay Data

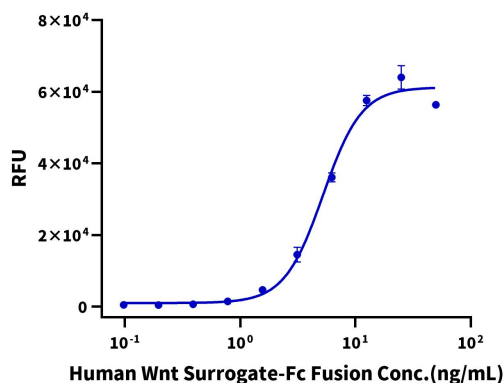
### Bis-Tris PAGE



Human Wnt Surrogate-Fc Fusion on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### Cell Based Assay

#### Recombinant Human Wnt Surrogate-Fc Fusion Bioactivity



Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED50 for this effect is 2-12 ng/mL (QC Test).