

## PRODUCT INFORMATION

<b>Target</b>	SHH
<b>Synonyms</b>	Sonic Hedgehog Protein;SHH;HHG-1
<b>Description</b>	Recombinant Human Sonic Hedgehog is produced by our Mammalian expression system and the target gene encoding Cys24-Gly197 is expressed with a 6His tag at the C-terminus.
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	Q15465
<b>Expression Host</b>	HEK293
<b>Tag</b>	C-6×His Tag
<b>Molecular Characterization</b>	Not available
<b>Molecular Weight</b>	20.4 KDa
<b>Purity</b>	Greater than 95% as determined by reducing SDS-PAGE.
<b>Formulation &amp; Reconstitution</b>	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
<b>Storage&amp;Shipping</b>	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
<b>Sterility</b>	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 μm) prior to use.
<b>Background</b>	Sonic Hedgehog Homolog (SHH) belongs to a three-protein family called hedgehog. The other two family members are Indian Hedgehog (IHH) and Desert Hedgehog (DHH). Hedgehog proteins are key signaling molecules in embryonic development. SHH is expressed in various embryonic tissues and plays critical roles in regulating the patterning of many systems, such as limbs and brain. SHH also plays an important role in adult, including the division of adult stem cells and the development of certain cancers and other diseases. Human SHH is expressed as a 45kDa precursor, and undergoes a series of processing during secretion. After the removal of the signal peptide, a protease within the C-terminal domain catalyzes the cleavage of SHH into a 20 kDa N-terminal signaling domain (SHH-N) and a 25 kDa C-terminal domain (SHH-C). SHH-N has the "all signaling" capability. SHH-N binds to the 12 pass transmembrane protein Patched (Ptc) on cell surface, which releases the repression of the activity of Smoothened (Smo), a G-protein coupled receptor, by Ptc.
<b>Usage</b>	Research use only
<b>Conjugate</b>	Unconjugated



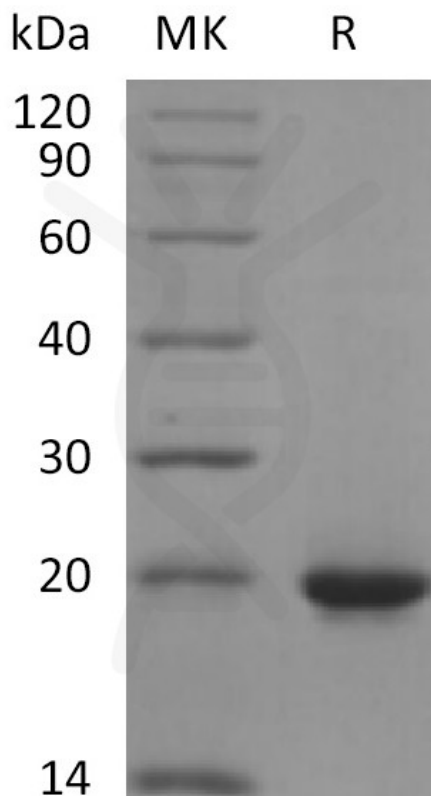


Figure 1. Greater than 95% as determined by reducing SDS-PAGE.

DIMABIO CONFIDENTIAL

