

## **Product datasheet for TA334657**

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OriGene Technologies, Inc.

## Sonic Hedgehog (SHH) Rabbit Polyclonal Antibody

**Product data:** 

**Product Type:** Primary Antibodies

**Applications:** IHC, WB **Recommended Dilution:** WB, IHC

Reactivity: Human, Mouse, Chicken

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

**Immunogen:** The immunogen for anti-SHH antibody: synthetic peptide directed towards the N terminal of

human SHH. Synthetic peptide located within the following region: RCLLLVLVSSLLVCSGLACGPGRGFGKRRHPKKLTPLAYKQFIPNVAEKT

Formulation: Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2%

sucrose.

Note that this product is shipped as lyophilized powder to China customers.

Purification: Affinity Purified
Conjugation: Unconjugated

**Store** at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

Predicted Protein Size: 28 kDa

Gene Name: sonic hedgehog

Database Link: NP 000184

Entrez Gene 20423 MouseEntrez Gene 6469 Human

Q15465



Background:

SHH is a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Defects in this protein or in its signalling pathway are a cause of holoprosencephaly (HPE). It is also thought that mutations in its gene or in its signalling pathway may be responsible for VACTERL syndrome, which is characterized by vertebral defects, anal atresia, tracheoesophageal fistula with esophageal atresia, radial and renal dysplasia, cardiac anomalies, and limb abnormalities. This gene, which is expressed only during embryogenesis, encodes a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to the sonic hedgehog protein of Drosophila, this protein is the most similar. The protein is made as a precursor that is autocatalytically cleaved; the Nterminal portion is soluble and contains the signalling activity while the C-terminal portion is involved in precursor processing. More importantly, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the developing embryo. Defects in this protein or in its signalling pathway are a cause of holoprosencephaly (HPE), a disorder in which the developing forebrain fails to correctly separate into right and left hemispheres. HPE is manifested by facial deformities. In addition, it is thought that mutations in this gene or in its signalling pathway may be responsible for VACTERL syndrome, which is characterized by vertebral defects, anal atresia, tracheoesophageal fistula with esophageal atresia, radial and renal dysplasia, cardiac anomalies, and limb abnormalities.

Synonyms: HHG1; HLP3; HPE3; MCOPCB5; SMMCI; TPT; TPTPS

Note: Immunogen Sequence Homology: Dog: 100%; Pig: 100%; Rat: 100%; Horse: 100%; Human:

100%; Mouse: 100%; Rabbit: 100%; Zebrafish: 100%; Guinea pig: 100%; Goat: 93%; Bovine:

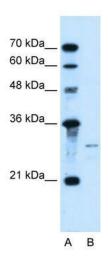
93%

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

**Protein Pathways:** Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer



## **Product images:**



WB Suggested Anti-SHH Antibody Titration: 0.2-1 ug/ml; Positive Control: HepG2 cell lysate

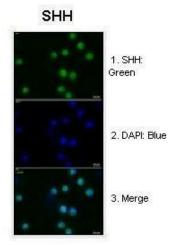






Chicken embryos; Primary antibody: 1: 1000 antishh Secondary Antibody: 1: 500 (ASP00001) goat anti-rabbit HRP conjugated





Sample Type: Human glioma cells Primary Antibody Dilution: 1: 200; Secondary Antibody: Anti-rabbit-GFP; Secondary Antibody: ilution: 1: 500; Color/Signal Descriptions: 1. SHH: Green 2. DAPI: Blue 3. Merge; Gene Name: SHH; Submitted by: ELIAS EL HABR, PhD,