

Human Sonic Hedgehog ELISA Kit ab100639

★★★★★ 1 Abreviews 23 References 2 Images

Overview

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|------------------|---|
| Product name | Human Sonic Hedgehog ELISA Kit |
| Detection method | Colorimetric |
| Sample type | Cell culture supernatant, Serum, Plasma |
| Assay type | Sandwich (quantitative) |
| Sensitivity | < 20 pg/ml |
| Range | 13.72 pg/ml - 10000 pg/ml |
| Recovery | 94 % |

Sample specific recovery

| Sample type | Average % | Range |
|--------------------------|-----------|------------|
| Cell culture supernatant | 91.72 | 82% - 101% |
| Serum | 95.34 | 84% - 103% |
| Plasma | 76.43 | 68% - 89% |

| | |
|--------------------|---|
| Assay duration | Multiple steps standard assay |
| Species reactivity | Reacts with: Human |
| Product overview | <p>Abcam's Sonic Hedgehog Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an <i>in vitro</i> enzyme-linked immunosorbent assay for the quantitative measurement of Human Sonic Hedgehog in serum, plasma, cell culture supernatants.</p> <p>This assay employs an antibody specific for Human Sonic Hedgehog coated on a 96-well plate. Standards and samples are pipetted into the wells and Sonic Hedgehog present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human Sonic Hedgehog antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of Sonic Hedgehog bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.</p> |
| Notes | Optimization may be required with urine samples. |
| Platform | Microplate |

Properties

Storage instructions

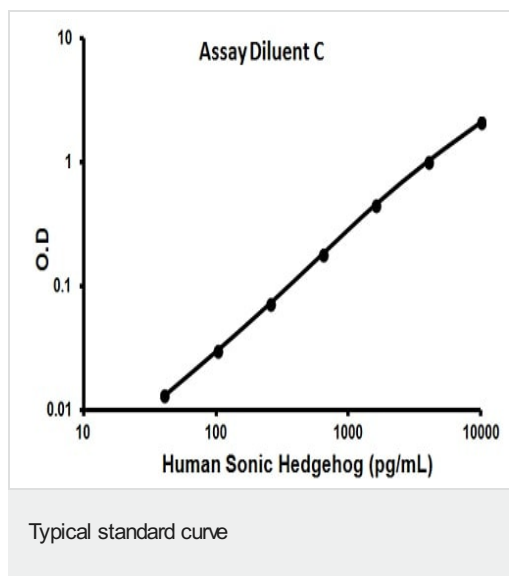
Store at -20°C. Please refer to protocols.

| Components | 1 x 96 tests |
|---|--------------|
| 200X HRP-Streptavidin Concentrate | 1 x 200µl |
| 20X Wash Buffer | 1 x 25ml |
| 5X Assay Diluent B | 1 x 15ml |
| Assay Diluent C | 1 x 30ml |
| Biotinylated anti-Human Sonic Hedgehog | 2 units |
| Recombinant Human Sonic Hedgehog Standard (lyophilized) | 2 vials |
| Sonic Hedgehog Microplate (12 x 8 wells) | 1 unit |
| Stop Solution | 1 x 8ml |
| TMB One-Step Substrate Reagent | 1 x 12ml |

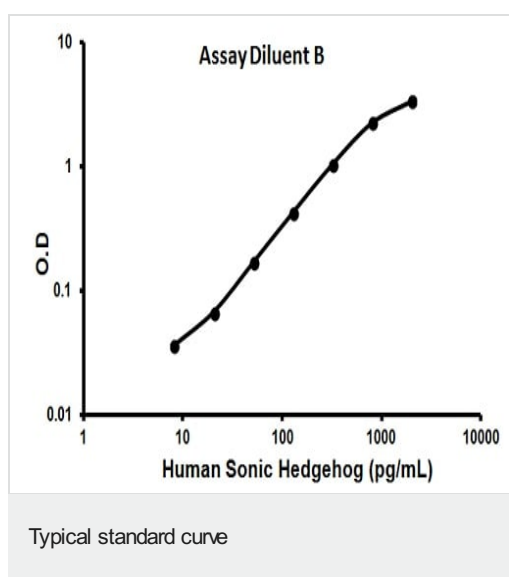
Relevance

Sonic Hedgehog, which is expressed only during embryogenesis, 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 N-terminal 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.

Images



Representative standard curve using ab100639



Representative standard curve using ab100639

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