

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Patched 2/PTCH2 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse Patched is observed.                                                                                                               |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Patched 2/PTCH2 first extracellular loop<br>Glu79-Glu392<br>Accession # Q9Y6C5                                                                                                                                                    |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                                                 |                                                                        |
|-------------------------------------------------|------------------------------------------------------------------------|
| <b>CyTOF-ready</b>                              | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>                             | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b>                     | Optimal dilution of this antibody should be experimentally determined. |
| <b>Intracellular Staining by Flow Cytometry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Patched 2 (Ptch2) is a 180-200 kDa 12 transmembrane member of the Patched family. Human PTCH2 is 1203 amino acids (aa) in length. It has two terminal cytoplasmic domains, one between aa 1-57, and a second between aa 1115-1203. Together with Smoothened (SMO), Ptch2 forms a membrane complex that serves as a receptor for Sonic Hedgehog (SHH). Human Ptch2 likely has two isoforms. One shows an eight aa extension of the C-terminus, while a second shows a four aa substitution for the C-terminal 61 amino acids (aa 1143-1203). Over the first extracellular loop human Patched 2 shares 95% and 96% aa sequence identity with mouse and canine Patched 2, respectively.

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