

DESCRIPTION

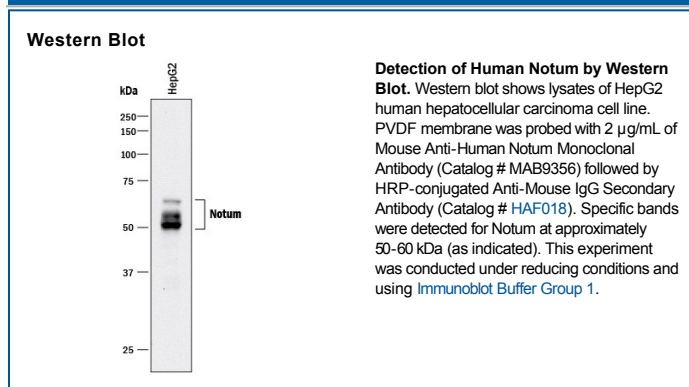
Species Reactivity	Human
Specificity	Detects human Notum in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 962216
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Notum Ser81-Thr451 Accession # Q6BXW9
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Notum is an evolutionarily conserved 60 kDa secreted deacylase that regulates Wnt activity (1, 2). It is tethered to the cell surface by binding to Glypican-like sulfated proteoglycans, and it functions as a Glypican-dependent Wnt inhibitor (1-4). Notum hydrolyzes the palmitoyl moiety from Wnt-3a, making the Wnt more hydrophilic and unable to bind to the Frizzled-8 receptor (1, 2). It also induces the release of cell surface GPI-anchored proteins such as Glypican-3, Cadherin-13, and uPAR (4). Notum regulates head regeneration in planaria (3), head formation and neural induction in Xenopus (1), and long range activity of hedgehog proteins in Drosophila (5). It is up-regulated in some human hepatocellular carcinomas and colorectal cancers (6, 7). Within amino acids 81-451, human Notum shares 92% aa sequence identity with mouse and rat Notum.

References:

1. Zhang, X. *et al.* (2015) *Dev. Cell* **32**:719.
2. Kakugawa, S. *et al.* (2015) *Nature* **519**:187.
3. Petersen, C.P. and P.W. Reddien (2011) *Science* **332**:852.
4. Traister, A. *et al.* (2008) *Biochem. J.* **410**:503.
5. Ayers, K.L. *et al.* (2010) *Dev. Cell* **18**:605.
6. Torisu, Y. *et al.* (2008) *Cancer Sci.* **99**:1139.
7. De Robertis, M. *et al.* (2015) *Oncotarget* **6**:41237.