Revision 4

Store at -20C

#8358

Hedgehog Signaling Antibody Sampler Kit

Cell Signaling TECHNOLOGY®

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Shh (C9C5) Rabbit mAb	2207	20 µl	19, (45 precursor) kDa	Rabbit IgG
PTCH1 (C53A3) Rabbit mAb	2468	20 µl	180-210 kDa	Rabbit IgG lambda
PTCH2 (G1191) Antibody	2470	20 µl	130 kDa	Rabbit
SUFU (C54G2) Rabbit mAb	2520	20 µl	54 kDa	Rabbit IgG
GLI1 (C68H3) Rabbit mAb	3538	20 µl	160 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

This sampler kit provides an economical means of evaluating key members of the Hedgehog signaling pathway. The kit contains enough primary and secondary antibody to perform two western miniblot experiments.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Background

The evolutionarily conserved Hedgehog (Hh) signaling pathway plays critical roles in the regulation of patterning, growth, and cell migration during embryonic development and adult tissue homeostasis. Aberrant Hh signaling activity can be associated with numerous birth defects and uncontrolled Hh pathway activation is linked to the development of several types of cancers (1-2). The three identified vertebrate Hh genes are Sonic (Shh), Indian (Ihh), and Desert (Dhh), all of which have distinct as well as overlapping roles (3-5). Patched1 and 2 (PTCH1 and PTCH2) are twelve-pass transmembrane proteins that function as the Hh receptors (6-9). The general organization of the Hh pathway consists of a series of repressive interactions. In the absence of Hh proteins (off-state), PTCH suppresses the otherwise constitutively active signaling receptor Smoothened (Smo) (1,2). In the off-state, SUFU (Suppressor of Fused), originally identified in *Drosophila as* a suppressor of the Fused (Fu) kinase (10), suppresses Hh signaling by regulating the localization of the transcription factors Gli and Ci (11,12). In *Drosophila*, SUFU may also positively regulate Hh signaling depending on SUFU protein levels and Hh signal intensity (13).

Background References

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