

DESCRIPTION

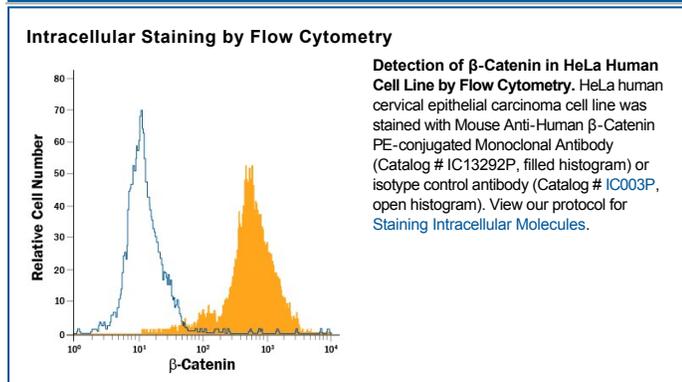
Species Reactivity	Human
Specificity	Detects human, mouse, and rat β -Catenin in Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 196624
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human β -Catenin Ala2-Leu781 Accession # P35222
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

β -Catenin is a 94-96 kDa member of the β -Catenin family, armadillo-repeat superfamily of intracellular molecules. Human β -Catenin is 781 amino acids (aa) in length and contains three basic regions; there is a "flexible" N-terminus (aa 1-110) that undergoes phosphorylation, O-linked glycosylation, acetylation and ubiquitination, a central region (aa 14-670) that contains 12 armadillo-like repeats and engages in protein-protein interaction, and a "flexible" C-terminus that also undergoes phosphorylation. β -Catenin is widely, if not ubiquitously expressed, being found in endothelial cells, NKT cells, cortical neurons, neural stem cells, osteoblasts, fibroblasts, skeletal muscle cells, and Tregs. β -Catenin is perhaps best known as a facilitator for Wnt signaling. In this context, and in the absence of Wnt signaling, non-nuclear or E-Cadherin-associated β -Catenin is continually synthesized and degraded via a phosphorylation-dependent program. Upon Wnt engagement of its LPR:Fzd receptor complex, phosphorylation stops, allowing for an increase in its half-life and translocation into the nucleus. Here, it binds to TCF, generating a gene-activating transcriptional complex. Notably, Wnt signaling has been described as being β -Catenin and Ca⁺⁺/non- β -Catenin based. It now appears they work in tandem, with Ca⁺⁺ mobilization facilitating the translocation of β -Catenin across the nuclear membrane. Human and mouse full-length β -Catenin shows 99% aa sequence identity.