IBL Data Sheet

Code No. 10387

Anti-
Smad3L (S213 Phosphorylated) (5A11) Mouse IgG MoAb

Volume : 50 µg

Introduction : Phosphorylation of signal transduction molecules Smad3, can be an important information for understanding of various biological functions of transforming growth factor (TGF)-β. TGF-β type I receptor and mitogen activated protein kinase (MAPK) phosphorylate Smad3 at the C-terminals and at linker (middle) regions respectively (ref. 1, 2). Mitogenic signaling induced by HGF, EGF and inflammatory cytokines is mediated by Smad3 phosphoisoform phophorylated serine located in linker region (ref. 3). This monoclonal antibody against for Smad3L (S213) recognizes the part of phosphorylated serine (Ser213) located in linker region of Smad3 specifically. It can be used for western blotting, immunoprecipitation and immunohistochemistry. It is applicable for enzyme biochemical analysis of Smad3 signaling and makes it possible to visualize the intermolecular reaction of phosphorylated Smad3 signaling in human tissues and monitor them in real-time. Thus, analysis of Smad3 signaling with this antibody is expected to be widely applied to cancer serearch (ref. 3) and fibrosis research (ref. 4), and to contribute to understanding the wide variety of life phenomina mediated by phosphoisoforms of Smad3.

Antigen : Synthetic peptide of phosphorylated Smad3L (S213)

Source : Mouse-Mouse hybridoma (X63 - Ag 8.653 × BALB/c mouse spleen cells)

Clone : 5A11 **Subclass** : IgG_1

Purification : Affinity purified with antigen peptide

Form : Lyophilized product in PBS containing 1 % BSA and 0.05 % NaN_3

How to use : 0.5 mL deionized water will be added to the product, then its concentration comes to 100 µg/mL

Stability : Lyophilized product, 5 years at 2 - 8 °C
: Solution, 2 years at –20 °C

Application : This antibody can be used for immunohistochemistory with formalin fixed paraffin embedded tissues after microwave pretreatment (10 mM citrate buffer, pH 6.0). The recommended concentration is about 2 µg /mL, however, the concentration should be optimized by each laboratory.
: This antibody can be used for western blotting in about 2 µg /mL.
: This antibody can be used for immuno-precipitation in about 2 µg /test.

Specificity : Reacts with phosphorylated Smad3L (Ser 213) of human in specific.

Reference :

1. Chen YG, Wang XF. Finale: the last minutes of Smads. Cell. 2009 Nov 13;139(4):658-60.
2. Wrighton KH, Lin X, Feng XH. Phospho-control of TGF-beta superfamily signaling. Cell Res. 2009 Jan;19(1):8-20.
3. Matsuzaki K. Smad phosphoisoform signaling specificity: the right place at the right time. Carcinogenesis. 2011 Nov;32(11):1578-88.
4. Matsuzaki K. Smad phosphoisoform signals in acute and chronic liver injury: similarities and differences between epithelial and mesenchymal cells. Cell Tissue Res. 2012 Jan;347(1):225-43.

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