Drosophila Decapentaplegic/DPP Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 146609

Catalog Number: FAB159T

100 µg

DESCRIPTION

Species Reactivity	*Drosophila*
Specificity	Detects *Drosophila* Decapentaplegic/DPP in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) TGF-α, rhTGF-β1, rhTGF-β1.2, rhTGF-β2, rhTGF-β3, rhLAP, recombinant porcine (
Source	Monoclonal Mouse IgG_{2B} Clone # 146609
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant *Drosophila* Decapentaplegic/DPP Asp457-Arg588 (Gln473His, Pro474Ala) Accession # NP_722813.1
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

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. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Decapentaplegic (Dpp) is one of at least five TGF-β superfamily ligands identified in the *Drosophila* genome. Dpp, a functional orthologue of mammalian BMP-2 and BMP-4, is a morphogen and plays an essential role in *Drosophila* development. Dpp regulates embryonic dorsal-ventral polarity and is required for gut morphogenesis and outgrowth and patterning of imaginal disks. Similar to other TGF-β family ligands, Dpp is synthesized as a large proprotein which is proteolytically processed at the dibasic cleavage site to release the carboxy-terminal domain. Biologically active Dpp is a disulfide-linked homodimer of the carboxy-terminal 132 amino acid residues that contains the characteristic conserved cysteine residues involved in the formation of the cysteine knot and the interchain disulfide bond. Cellular responses to Dpp have been shown to be mediated by the ligand-induced formation of heteromeric complexes of the *Drosophila* type I, Thick Veins (Tkv), and type II, Punt, serine/threonine kinases. The activated receptor complex induces the phosphorylation of the prototypical Smad, Mad, and subsequent translocation of the Mad-Medea complex to the nucleus where they regulate the transcription of target genes. Secreted extracellular Dpp antagonists, including the short-gastrulation (Sog) and twisted gastrulation (TSG), which bind Dpp and regulate its availability, have been identified.

PRODUCT SPECIFIC NOTICES

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475