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Datasheet for ABIN2747809

anti-Vestigial (VG) (phosphorylated) antibody

Overview

Quantity:	100 µg
Target:	Vestigial (VG)
Binding Specificity:	phosphorylated
Reactivity:	Drosophila melanogaster
Host:	Rabbit
Clonality:	Polyclonal
Application:	ELISA, Western Blotting (WB)

Product Details

Immunogen:	Synthetic peptide corresponding to unique amino acid sequences on D. melanogaster Vestigial protein.
Isotype:	IgG
Specificity:	This antibody detects a single band of approximately 54 kDa in ABIN1041056 samples.
Cross-Reactivity:	Fly (Calliphora), Mouse (Murine), Rat (Rattus)
Characteristics:	Phospho specific Vstgl-selective antibodies were generated against purified Glutamate receptor 1 (PVstgl) protein. PVstgl-antibodies are affinity purified over immobilized antigen based chromatography, and the purified immunoglobulins are stabilized in antibody stabilization buffer. The supplier will also provide limited quantities of antigenic blocking protein for Pvstgl antibody. Antibodies to PVstgl (PVstgl -140AP) will label 54 kDa protein in Western blot positive control samples for PVstgl and several other tissues. FabGennix Inc. will also conjugate antibodies with secondary enzymes (alk-Pase or HRP) or fluorescent probes upon request at

Product Details

nominal cost. Limited quantities of antigenic blocking peptide is also available, please inquire before placing the orders.

Purification: Affinity Purified

Target Details

Target: Vestigial (VG)

Alternative Name: Protein Vestigial ([VG Products](#))

Background: Phosphospecific antibodies are affinity-purified rabbit polyclonal or monoclonal antibodies, monospecific for a target protein that is phosphorylated on a specific tyrosine, threonine, or serine residue. The fly *Drosophila melanogaster* is one of the most intensively studied organisms in biology used for the investigation of many developmental and cellular processes common to higher eukaryotes, including humans. The entire fly genome encodes approximately 13,600 genes with vast functional diversity. The dorsal ventral patterning in vertebrate embryos is regulated by members of TGF-beta family of growth and differentiation factors. Regulatory genes in insects regulate the conserved signal transduction pathways and provide organ-specific information that is crucial in the development of organs such as wings, eyes and legs. One such gene in *Drosophila Melanogaster* (fruit flies) is vestigial (*vg*) which is approximately a 54 kDa protein. *Vg*, by interacting with other nuclear proteins, is implicated in determining which thoracic imaginal disc cells will form wings and halteres. *Vg*, via its interaction with transcription factor scalloped (*sd*), regulates wing-specific gene expression in *Drosophila*. This *vg-sd* interaction forms an active complex that binds to specific DNA sequences and regulates gene expression in cooperation with several signaling pathways. *Vg* gene is activated by dorsoventral organizing signals, and is induced by long-range signaling protein, Decapentaplegic (*Dpp*). *Vg* is expressed in the developing wing discs only, and so is known as a selector protein for wing identity and development. A decrease in *vg* function shifts the dorso-ventral boundary cells of the disc to a cell death sensitive state, and loss of *vg* function eliminates wing and haltere formation. However, only the TEA domain of scalloped is required for wing development & the rest of the protein is dispensable. Phosphorylation of the serine/threonine-rich domain is crucial in regulating cytokine-specific cell differentiation. Vestigial-like 2 (*Vgll2*), a vertebrates homolog of *Vg*, is specifically expressed in skeletal muscle. Over-expression of *Vgll2* enhances myotube formation whereas *Vgll2* knockdown blocks myogenic differentiation, demonstrating the important role of *Vgll2* in skeletal muscle differentiation. Casein kinase II (*CKII*) is conserved as phosphorylation site (Serine 96) in all vestigial-like (*Vgll*) proteins. Bacterially-expressed purified GST-*Vgll2* protein is selectively

Target Details

phosphorylated by CKII in vitro. Immunocytochemistry results imply that phosphorylation of the serine 96 residue is necessary for the Vgll2-based myogenic differentiation. Inactivation of Drosophila tumor suppressor gene causes excessive proliferation and neoplastic growth. Metastatic tumors of Drosophila provide a model to identify genes that are involved in the metastatic process.

NCBI Accession: [NP_523723](#)

UniProt: [Q26366](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Comment: Synonyms: Vg, VG, vg21, Dmel/CG3830, CG3830

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 0.65-0.75 µg/µL

Handling Advice: Working solutions of antibodies in buffer should be filtered through 0.45 µm filter after every use for long-term storage.

Storage: -20 °C

Storage Comment: For long-term storage of keep at -20 °C. We don't recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer.