Human ALK-7
Alexa Fluor® 405-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 810506

Catalog Number: FAB77491V

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ALK-7 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant rat ALK-7 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 810506
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human ALK-7 Leu26-Glu113 Accession # Q8NER5
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2 mg/mL 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
Flow Cytometry	0.25-1 µg/10^6 cells	PC-3 human prostate cancer cell line

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

Activin receptor-like kinase 7 (ALK-7), also known as Activin R1C (gene name ACVR1C), is a glycosylated 58 kDa type I receptor in the superfamily of TGF-β serine/threonine kinase receptors. It associates with type II receptors to form a signaling complex that responds to the ligands Activin AB, and Activin B, GDF3, and Nodal. ALK-7 plays a role in regulating energy balance by inhibiting insulin secretion and inducing pancreatic beta cell apoptosis. It is expressed in adipose tissue but downregulated in obesity. ALK-7 is also expressed in pituitary gonadotropic cells and in pre-eclamptic placenta. It induces the apoptosis of trophoblasts as well as ovarian granulosa and epithelial cells. Within the extracellular domain, human ALK-7 shares 95% and 91% amino acid (aa) sequence identity with mouse and rat ALK-7, respectively. Alternate splicing of human ALK-7 generates additional isoforms with either a 50 aa N-terminal truncation or with deletions of 79 aa or 157 aa that encompass the transmembrane segment.

PRODUCT SPECIFIC NOTICES

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