

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human WIF-1 in ELISAs. In sandwich immunoassays, no cross-reactivity with recombinant mouse WIF-1 or recombinant human Wnt-7a is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 133009
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human WIF-1 Gly29-Trp379 Accession # AAD25402
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	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

WIF (Wnt Inhibitory Factor) is a secreted protein that binds to Wnt proteins and inhibits their activity. The protein is synthesized as a 379 amino acid (aa) molecule that contains an N-terminal signal sequence, 150 aa WIF domain, 5 EGF-like repeats, and a hydrophilic domain at the carboxy terminus (1). In situ hybridization analysis from the frog, *Xenopus laevis*, and zebrafish indicate that the message is highly expressed in presomitic mesoderm, the notochord, anterior regions of the brain, branchial arches, nasal placodes, and otic vesicles (1). WIF inhibits secondary axis induction by Wnts and promotes secondary axis induction by Chordin in *Xenopus* embryos (1). *In vitro*, WIF binds to *Drosophila* Wingless and *Xenopus* Wnt-8 proteins (1). WIF-1 is implicated as an early event tumor suppressor in cancers of the prostate, breast, lung and bladder (2). However, WIF-1's role in carcinogenesis may not be that simple since in other cancer types, such as colon adenocarcinoma, WIF facilitates tumorigenesis (3). Human WIF-1 shares 94% and 82% amino acid identity with mouse and frog, respectively.

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