

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human and mouse WIF-1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human WIF-1 Gly29-Trp379 Accession # AAD25402
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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
Western Blot	0.1 µg/mL	Recombinant Human WIF-1 (Catalog # 1341-WF)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

References:

1. Hsieh, J.-C. *et al.* (1999) *Nature* **398**:431.
2. Wissmann, C. *et al.* (2003) *J. Pathol* **201**:204.
3. Cebrat, M. *et al.* (2004) *Cancer Lett.* **206**:107.