

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Soggy-1/DkkL1 in direct ELISAs and Western blots. In Western blots, approximately 5% cross-reactivity with recombinant mouse Soggy-1 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Soggy-1/DkkL1 Ala31-Leu242 Accession # Q9UK85
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

## 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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human Soggy-1 (Catalog # 1549-S1)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Soggy-1, also known as DkkL1 (Dickkopf-like 1), is a secreted protein that is related to the Dickkopf family of Wnt antagonists. Dkk-1, -2, -3, and -4 each have two cysteine-rich domains separated by a linker. Soggy-1 does not contain cysteine-rich domains but bears some sequence homology with the N-terminal regions of Dkk proteins (1, 2). The human Soggy-1 cDNA encodes a 242 amino acid (aa) precursor that includes a 30 aa signal sequence (2). Human Soggy-1 shares approximately 65% aa sequence identity with mouse and rat Soggy-1 and 15-20% aa sequence identity with human Dkk-1, -2, -3, and -4. Mouse Soggy-1 is expressed at various sites in the embryo but in the adult is primarily found in the testes (3-5). Soggy-1 transcription is regulated by the spermatocyte specific factor, RFX2 (6). The regulatory elements for Soggy-1 lie very close to those of TEAD-2, a transcription factor that is expressed very early in development (4). Soggy-1 and TEAD-2 are co-expressed in preimplantation embryos and embryonic stem cells, but differentiated cells express only one or the other (4, 5). During development, Soggy-1 is first detectable at the onset of sexual differentiation (4). Soggy-1 is localized to the acrosome in developing spermatocytes and mature spermatozoa (3, 4). Soggy-1, as expressed in developing mouse spermatocytes, is a 34 kDa N-glycosylated protein. This glycosylation is not present on Soggy-1 in mature spermatozoa, although the apparent molecular weight suggests the presence of some post-translational modification (3). Two shorter forms of Soggy-1 have been described that result from the use of internal methionine residues for initiation (4).

### References:

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2. Krupnik, V.E. *et al.* (1999) Gene **238**:301.
3. Kohn, M.J. *et al.* (2005) Mol. Reprod. Dev. **71**:516.
4. Kaneko, K.J. and M.L. DePamphilis (2000) Nucleic Acids Res. **28**:3982.
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6. Horvath, G.C. *et al.* (2004) Biol. Reprod. **71**:1551.