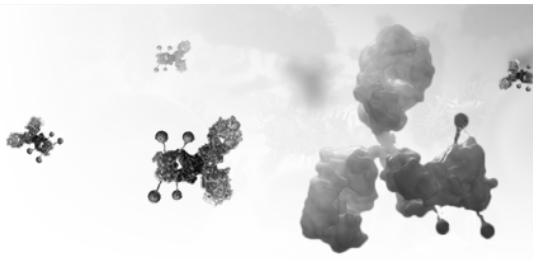

Amphibian Amphibian TGF-β5, CF (aa 271 - 382, 274 - 382) (DAG2603)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Recombinant Amphibian TGF-β5 antigen was expressed in Spodoptera frugiperda, Sf 21 (baculovirus). Gly271-Ser382 & Gln274-Ser382 (Accession # P16176)
Antigen Description	TGF-β5 is a member of the TGF-β family of growth factors. These proteins are stable, multifunctional factors with a wide variety of effects on the growth and differentiation of virtually all cell types. These actions on growth or differentiation may be stimulatory or inhibitory, depending on the cell type, growth conditions, state of differentiation and on the presence of other growth factors. The full range of in vitro biological activities of TGF-β5 has not yet been explored. However, TGF-β1, TGF-β2, TGF-β3, and TGF-β5 have been found to be largely interchangeable in an inhibitory bioassay, and it is anticipated that TGF-β5 will show a spectrum of activities similar to the other TGF-β family members. The in vivo role of TGF-β5 is also not known, but the presence of this factor in Xenopus embryos, tadpole cells, and adult tissues suggests a role in the mediation of differentiation and development. Similar roles have been suggested for other members of the TGF-β family. To date, the production of TGF-β5 has only been demonstrated in Xenopus.
Species	Spodoptera frugiperda
Purity	> 97%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Conjugate	Unconjugated
Format	Lyophilized from a 0.2 μm filtered solution in Acetonitrile and TFA
Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

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Introduction	Mesoderm formation comes from two signals: one for the ventral portion and one for the dorsal portion. Animal cap assays were used to determine the molecular signals from the vegetal cap that are able to induce the animal cap to form mesoderm. In an animal cap assay, molecules of interest are either applied in medium that the cap is grown in or injected as mRNA in an early embryo. These experiments identified a group of molecules, the transforming growth factor-β (TGF-β) family. With dominant negative forms of TGF-β, early experiments were only able to identify the family of molecules involved not the specific member. Recent experiments have identified the Xenopus nodal-related proteins (Xnr-1, Xnr-2, and Xnr-4) as the mesoderm-inducing signals. Inhibitors of these ligands prevents mesoderm formation and these proteins show a graded distribution along the dorsal/ventral axis.
Keywords	transforming growth factor-β; TGF-β; Amphibian TGF-β5; Amphibian Transforming growth factor beta protein; Amphibian

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