

Anti-Swine TNFa (RABBIT) Antibody - 214-401-306

Code: 214-401-306

Size: 100 µg

Product Description: Anti-Swine TNFa (RABBIT) Antibody - 214-401-306

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Lyophilized

Label	Unconjugated
Host	Rabbit
Gene Name	TNFA
Species Reactivity	Swine
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	TNF-A, TNF-a, TNF alpha, cachexin , cachectin; tumor necrosis factor-alpha, TNFSF2, TNFSF1A.
Application Note	This protein A purified antibody is suitable for ELISA and Western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 16.9 kDa in size corresponding to swine TNFa by western blotting in the appropriate cell lysate or extract.
Background	<p>Tumor necrosis factor-alpha (TNFa) in humans is a pleiotropic inflammatory cytokine. It is expressed by many different stimulated cell types including monocytes, endothelial cells, fibroblasts and both T and B-lymphocytes, but especially by macrophages. It affects most organs. The production of TNF alpha is induced by IL-1, PDGF, IFN-beta, NGF, Oncostatin M and certain fungal, viral, and parasitic invasions. Bacterial lipopolysaccharide is an especially potent stimulus.</p> <p>The primary role of TNFa is in the regulation of immune cells. TNF a mediates septic shock in response to infection. It initiates a cascade of cytokines and increases vascular permeability, thereby recruiting macrophages and neutrophils. TNFa secreted by macrophages causes blood clotting which helps contain infection. TNFa is also able to induce apoptotic cell death or inflammation, and to inhibit viral replication. It possesses growth stimulating, inhibitory, and self regulatory properties. Dysregulation of TNFa production has been implicated in a variety of human diseases, as well as cancer.</p> <p>The presence of TNFa is responsible for diverse immunomodulatory and toxic effects. For instance, TNFa induces neutrophil proliferation during inflammation, but it also induces neutrophil apoptosis upon binding to the TNF-R55 receptor. TNFa causes necrosis of some types of tumors, but promotes growth of other types. Low levels may aid in maintaining homeostasis by regulating the body's circadian rhythm, and may promote remodeling or replacement of injured and senescent tissue by stimulating fibroblast growth. High levels of TNFa correlate with increased risk of mortality.</p>
Purity And Specificity	This product was Protein-A purified from monospecific antiserum by chromatography. It is specific for swine TNFa protein. A BLAST analysis was used to suggest cross-reactivity with TNFa from swine sources based on 100% homology with the immunizing sequence. Partial reactivity is expected against TNFa from baboon based on 90% homology. Cross-reactivity with TNFa from sources other than swine has not been determined.
ELISA	1:2,000 - 1:2,500
Immunohistochemistry	User Optimized
WESTERN BLOT	1:1000
IHC	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	This protein-A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein raised in yeast, corresponding to 154 amino acids of mature swine TNFa.
General Reference	<p>Murray J, Barbara J, Dunkley S et al. Regulation of Neutrophil Apoptosis by Tumour Necrosis Factor-Alpha: Requirements for TNF-R55 and TNF-R75 for Induction of Apoptosis In Vitro. Blood 1997; 90(7): 2772-83.</p> <p>Kim,C.J., Kovacs-Nolan,J., Yang,C., Archbold,T., Fan,M.Z. and Mine,Y. L-cysteine supplementation attenuates</p>

local inflammation and restores gut homeostasis in a porcine model of colitis. *Biochim. Biophys. Acta* 1790 (10), 1161-1169 (2009)

Luo,X., Li,H.X., Liu,R.X., Wu,Z.S., Yang,Y.J. and Yang,G.S. Beta-catenin protein utilized by Tumour necrosis factor-alpha in porcine preadipocytes to suppress differentiation. *BMB Rep* 42 (6), 338-343 (2009)

Related Products

009-001-306	TNF-a Human Recombinant Protein - 009-001-306
010-001-321	TNF-a Mouse Recombinant Protein - 010-001-321(1)
109-401-306	Anti-Human TNF alpha (RABBIT) Antibody - 109-401-306
109-401-308	Anti-Human TNF p55 Receptor (sTNFRp55) (RABBIT) Antibody - 109-401-308

Related Links

Images

- 1 Western blot using Rockland's protein-A purified anti-swine TNF α antibody shows detection of recombinant swine TNF α at 16.9 kDa, raised in yeast. The identity of the faint band at 135 kDa is not known. The protein was purified and resolved by SDS-PAGE, then transferred to PVDF membrane. Membrane was blocked with 3% BSA (BSA-30, diluted 1:10), and probed with 1 μ g/mL primary antibody overnight at 4°C. After washing, membrane was probed with IRDye800™ Conjugated Goat Anti-Rabbit IgG (p/n 611-132-122) for 45 min at room temperature.



Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.