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LTF Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AW5385

Product Information

Application	IF, IHC-P, WB
Primary Accession	P02788
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	78182
Isotype	IgG1κ
Antigen Source	HUMAN

Additional Information

Gene ID	4057
Antigen Region	249-712
Other Names	Lactotransferrin, Lactoferrin, 3421-, Growth-inhibiting protein 12, Talalactoferrin, Lactoferricin-H, Lfcin-H, Kaliocin-1, Lactoferroxin-A, Lactoferroxin-B, Lactoferroxin-C, LTF, GIG12, LF
Dilution	IF~~1:10~50 IHC-P~~1:100~500 WB~~1:1000
Target/Specificity	This LTF Monoclonal antibody is generated from mouse immunized with LTF recombinant protein.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	LTF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LTF (HGNC:6720)
Synonyms	GIG12, LF
Function	Transferrins are iron binding transport proteins which can bind two Fe(3+)

	ions in association with the binding of an anion, usually bicarbonate.
Cellular Location	[Isoform 1]: Secreted. Cytoplasmic granule. Note=Secreted into most exocrine fluids by various endothelial cells. Stored in the secondary granules of neutrophils
Tissue Location	High levels are found in saliva and tears, intermediate levels in serum and plasma, and low levels in urine. In kidney, detected in the distal collecting tubules in the medulla but not in the cortical region or in blood vessels. Detected in peripheral blood neutrophils (at protein level). Isoform 1 and isoform DeltaLf are expressed in breast, prostate, spleen, pancreas, kidney, small intestine, lung, skeletal muscle, uterus, thymus and fetal liver Isoform 1 is expressed in brain, testis and peripheral blood leukocytes; isoform DeltaLf is barely detectable in these tissues Isoform DeltaLf is expressed in placenta, liver and ovary; isoform 1 is barely detectable in these tissues. In kidney, isoform 1 is expressed at high levels in the collecting tubules of the medulla but at very low levels in the cortex.

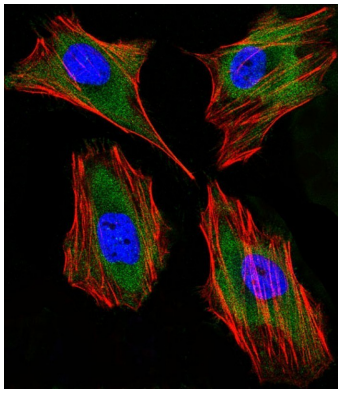
Background

This gene is a member of the transferrin family of genes and its protein product is found in the secondary granules of neutrophils. The protein is a major iron-binding protein in milk and body secretions with an antimicrobial activity, making it an important component of the non-specific immune system. The protein demonstrates a broad spectrum of properties, including regulation of iron homeostasis, host defense against a broad range of microbial infections, anti-inflammatory activity, regulation of cellular growth and differentiation and protection against cancer development and metastasis.

References

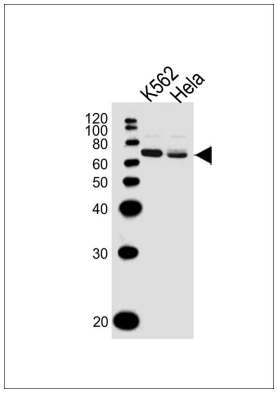
A genetic association study of maternal and fetal candidate genes that predispose to preterm prelabor rupture of membranes (PROM). Romero R, et al. Am J Obstet Gynecol, 2010 Jul 29. PMID 20673868. Examination of genetic polymorphisms in newborns for signatures of sex-specific prenatal selection. Ucisik-Akkaya E, et al. Mol Hum Reprod, 2010 Oct. PMID 20587610. Interleukin-9 polymorphism in infants with respiratory syncytial virus infection: an opposite effect in boys and girls. Schuurhof A, et al. Pediatr Pulmonol, 2010 Jun. PMID 20503287. Analysis of the association between lactotransferrin (LTF) gene polymorphism and dental caries. Azevedo LF, et al. J Appl Oral Sci, 2010 Mar-Apr. PMID 20485928. Identification of fetal and maternal single nucleotide polymorphisms in candidate genes that predispose to spontaneous preterm labor with intact membranes. Romero R, et al. Am J Obstet Gynecol, 2010 May. PMID 20452482.

Images

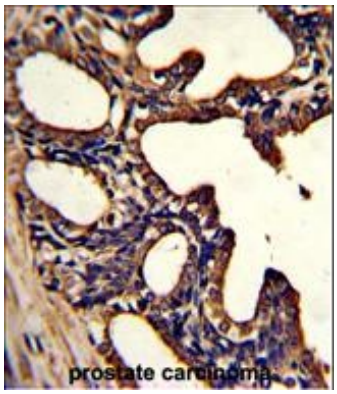


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized Hela (Human Cervical epithelial adenocarcinoma cell line) cells labeling Pdx1 with AW5385 at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on Hela cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).

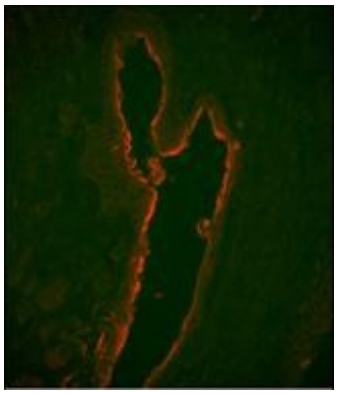
All lanes : Anti-LTF Antibody at 1:1000 dilution Lane 1:



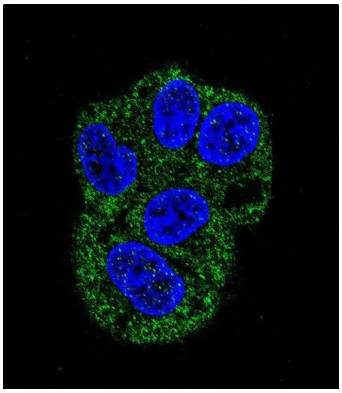
K562 whole cell lysates Lane 2: Hela whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 78 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human prostate carcinoma with LTF Monoclonal Antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Immunofluorescence analysis of LTF Monoclonal Antibody with paraffin-embedded human prostate carcinoma tissue . 0.05 mg/ml primary antibody was followed by PE-conjugated goat anti-mouse lgG (whole molecule). PE emits orange fluorescence.



Confocal immunofluorescent analysis of LTF Antibody (Cat#AW5385) with HepG2 cell followed by Alexa Fluor® 488-conjugated goat anti-mouse lgG (green). DAPI was used to stain the cell nuclear (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.