

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Uteroglobin/SCGB1A1 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Uteroglobin/SCGB1A1 Glu22-Asn91 Accession # NP_003348
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Uteroglobin, also called Clara cell secretory, phospholipid binding, 10 kDa or 16 kDa protein (CCSP, CCPBP, CC10 or CC16, respectively) is a small, non-glycosylated secreted protein of the secretoglobulin superfamily, (designated 1A, member 1) (1-3). Its name is derived from its very high expression in the pre-implantation uterus. It is produced by the non-ciliated, non-mucous secretory cells that predominate in lung bronchioles (Clara cells), and other non-ciliated epithelia that communicate with the external environment (1-3). Expression is induced by steroid hormones such as estrogen, and enhanced by the non-steroid hormone prolactin (1). Uteroglobin is found in blood, urine and other body fluids (1). Human Uteroglobin cDNA encodes a 21 amino acid (aa) signal sequence and a 70 aa mature protein. It shares 53-56% aa identity with mouse, rat, bovine, canine, equine or rabbit Uteroglobin, and is active in mice (4). The mature protein forms a disulfide-linked head-to-tail homodimer of 16 kDa (2, 5). This homodimer is thought to form a binding pocket that binds hydrophobic ligands such as phospholipids, progesterone and retinols (5). Sequestering of prostaglandins and leukotrienes is anti-inflammatory, while sequestering of carcinogens such as polychlorinated bisphenols is anti-tumorigenic (6-8). Other immunoregulatory activities of Uteroglobin include cell migration inhibition (by binding the chemotaxis-related formyl peptide receptor FPR2 on dendritic cells), and the inhibition of T cell differentiation to a Th2 phenotype (9). A single nucleotide polymorphism of Uteroglobin, A38G, confers increased risk of asthma (10). Transglutaminase can crosslink Uteroglobin, either to itself or to other proteins such as the adhesion molecule fibronectin (3, 11). Binding of fibronectin to Uteroglobin in the kidney is thought to protect against nephropathy, while binding of the lipocalin-1 receptor has been reported to suppress cancer cell motility and invasion (12, 13).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.