Human Uteroglobin/SCGB1A1 Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4218N
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Uteroglobin/SCGB1A1 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Uteroglobin/SCGB1A1 Glu22-Asn91 Accession # NP_003348
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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 secretoglobin 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).

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