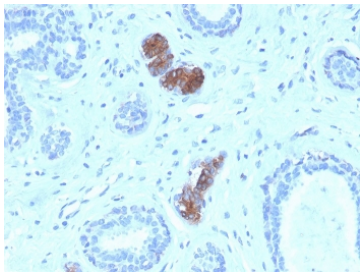
Mammaglobin Antibody - HuProt Validated / SCGB2A2 Antibody [clone MGB/4056] (V8616)

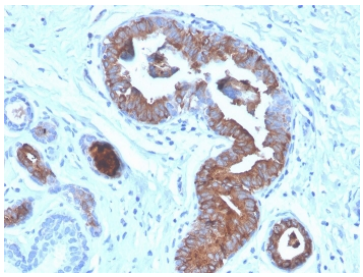
Catalog No.	Formulation	Size
V8616-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8616-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8616SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

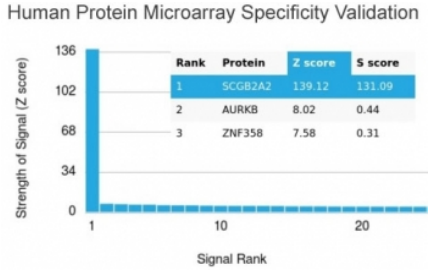
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	MGB/4056
Purity	Protein G affinity chromatography
UniProt	Q13296
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Mammaglobin antibody is available for research use only.



Mammaglobin Antibody - HuProt Validated immunohistochemistry of human breast carcinoma. FFPE human breast carcinoma tissue was stained with Mammaglobin Antibody - HuProt Validated (clone MGB/4056). HRP-DAB brown chromogenic signal highlights cytoplasmic staining in clusters of tumor epithelial cells within glandular structures, consistent with expression of Mammaglobin A / SCGB2A2 in breast carcinoma cells, while surrounding stromal cells show little to no staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining.



HC staining of FFPE human breast carcinoma with Mammaglobin antibody (clone MGB/4056). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Mammaglobin Antibody - HuProt Validated clone MGB/4056 - protein microarray specificity validation. Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins was performed using Mammaglobin Antibody - HuProt Validated (clone MGB/4056). The strongest binding signal corresponds to SCGB2A2 (Mammaglobin A), which ranks first on the array, demonstrating high specificity of the MGB/4056 mouse monoclonal antibody for its intended target. Z- and S-scores quantify antibody binding strength and target specificity. The Z-score represents the signal intensity produced when the antibody, together with a fluorescently labeled anti-IgG secondary antibody, binds to a protein on the array and is expressed as standard deviations above the mean signal of the array. When proteins are ordered by descending Z-score, the S-score represents the difference between adjacent Z-scores and therefore reflects the relative specificity of the antibody for its target protein.

Description

Mammaglobin A (SCGB2A2) is a secreted glycoprotein encoded by the SCGB2A2 gene and belongs to the secretoglobin family of small epithelial secreted proteins. Mammaglobin Antibody - HuProt Validated clone MGB/4056 recognizes this breast-associated protein and has undergone specificity testing using HuProt human protein microarray analysis, providing an additional level of validation for selective target recognition in protein detection studies.

HuProt validation is a large-scale antibody specificity assessment method that evaluates antibody binding across thousands of purified human proteins simultaneously. In this approach, a microarray containing more than 19,000 full-length human proteins is probed with the antibody of interest. The relative signal intensity across the array allows researchers to determine whether the strongest signal corresponds to the intended target and to evaluate potential cross-reactivity with unrelated proteins. Mammaglobin Antibody - HuProt Validated (clone MGB/4056) demonstrates selective recognition of Mammaglobin A / SCGB2A2 relative to other proteins on the array.

Mammaglobin antibody, also referred to as Mammaglobin A antibody or SCGB2A2 antibody in the literature, detects a protein primarily expressed in mammary epithelial cells. Mammaglobin A is secreted by luminal epithelial cells within mammary glandular structures and is frequently detected in breast tissue and breast carcinoma samples. Because of this relatively restricted tissue distribution, Mammaglobin is widely studied as a marker of breast epithelial differentiation and breast tumor origin.

Structurally, Mammaglobin A is a small secreted protein that contains conserved cysteine residues characteristic of secretoglobin family members. These structural features contribute to protein folding and stability within secretory environments. As a secreted epithelial protein, Mammaglobin participates in glandular secretion pathways in mammary tissue and may be detected in tissue lysates, cell extracts, or secreted protein fractions depending on the experimental context.

HuProt validation provides an important layer of specificity confirmation when evaluating antibodies used for molecular biology and protein detection experiments. By demonstrating strong binding to Mammaglobin / SCGB2A2 among thousands of human proteins on the HuProt array, Mammaglobin Antibody - HuProt Validated clone MGB/4056, a mouse monoclonal antibody, supports reliable detection of this breast-associated protein in studies of mammary epithelial biology, breast cancer research, and protein expression analysis.

Application Notes

Optimal dilution of the Mammaglobin Antibody - HuProt Validated should be determined by the researcher.

Immunogen

Recombinant full-length human Mammaglobin-1 protein was used as the immunogen for the Mammaglobin antibody.

Storage

Store the Mammaglobin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Mammaglobin A antibody, SCGB2A2 antibody, Mammary gland secretoglobin antibody, Secretoglobin family 2A member 2 antibody, Mammaglobin breast marker antibody