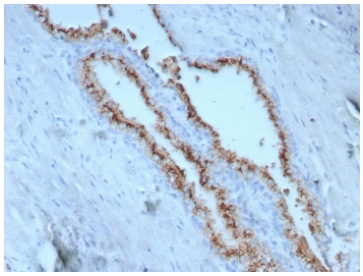
Prostein Antibody / Secretory Epithelial Cell Function Antibody [clone SLC45A3/7650] (V4784)

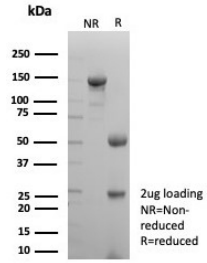
Catalog No.	Formulation	Size
V4784-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4784-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4784SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	SLC45A3/7650
Purity	Protein A/G affinity
UniProt	Q96JT2
Localization	Membrane
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This Prostein antibody is available for research use only.



Prostein Antibody for IHC. Immunohistochemistry analysis of Prostein / SLC45A3 antibody staining in FFPE human prostate tissue using clone SLC45A3/7650. Strong cytoplasmic and perinuclear staining is observed in prostate glandular epithelial cells outlining luminal structures, consistent with Golgi-associated localization of Prostein, while surrounding stromal cells remain negative. The staining highlights secretory epithelial cell populations and preserves luminal architecture, supporting the role of SLC45A3 in protein processing and intracellular trafficking within the secretory pathway. Heat-induced epitope retrieval was performed in pH 9 Tris-EDTA buffer for 20 minutes followed by cooling prior to antibody incubation.



SDS-PAGE analysis of purified, BSA-free Prostein antibody (clone SLC45A3/7650) as confirmation of integrity and purity.

Description

Solute carrier family 45 member 3 (SLC45A3), commonly known as Prostein, is a prostate-specific protein encoded by the SLC45A3 gene and localized to the Golgi apparatus of secretory epithelial cells. Prostein Antibody is used to detect SLC45A3 in the context of secretory epithelial cell function, providing insight into protein processing, trafficking, and secretion within prostate tissue.

Prostein antibody, also referred to as SLC45A3 antibody or prostate-specific androgen-regulated protein antibody, is highly expressed in luminal epithelial cells of the prostate, which are specialized for secretory activity. These cells are responsible for producing and releasing proteins that contribute to glandular function, and SLC45A3 expression reflects the active secretory state of these epithelial populations.

The Golgi apparatus plays a central role in the secretory pathway, serving as the site of protein modification, sorting, and packaging prior to transport to their final destinations. Localization of SLC45A3 to this compartment positions it within the core machinery responsible for maintaining efficient secretion. The characteristic perinuclear staining pattern observed with Prostein detection reflects this Golgi-centered functional role.

Secretory epithelial cells depend on tightly regulated intracellular trafficking to maintain polarity and ensure directional protein release. SLC45A3 is thought to contribute to these processes by supporting Golgi-associated transport and vesicular trafficking pathways. Its expression therefore provides insight into the functional state of epithelial cells, particularly in tissues with high secretory demand such as the prostate.

In disease contexts, including prostate cancer, alterations in secretory pathway function can influence cellular organization, protein processing, and signaling behavior. Despite these changes, SLC45A3 expression is often retained in prostate tumors, indicating preservation of key aspects of epithelial identity and secretory activity. Detection of Prostein can therefore provide insight into both normal and disease-associated epithelial function.

Prostein Antibody clone SLC45A3/7650 enables investigation of secretory epithelial biology by allowing visualization of Golgi-associated protein distribution and assessment of intracellular trafficking dynamics. Its strong association with secretory function, combined with prostate-specific expression and defined subcellular localization, makes it a valuable tool for studying epithelial physiology, protein processing pathways, and functional organization within prostate tissue.

Application Notes

Optimal dilution of the Prostein Antibody / Secretory Epithelial Cell Function Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 300-500) from the human protein was used as the immunogen for the Prostein Antibody / Secretory Epithelial Cell Function Antibody.

Storage

Aliquot the Prostein antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

SLC45A3 antibody, Prostein antibody, Secretory epithelial marker antibody, SLC45A3 secretory protein antibody, Prostate secretory cell antibody