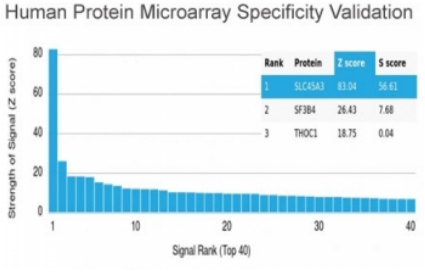
Prostein Antibody / Microarray-Validated Specificity Antibody [clone SLC45A3/7176R] (V9764)

Catalog No.	Formulation	Size
V9764-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9764-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9764SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

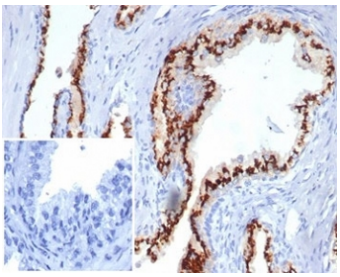
Recombinant RABBIT MONOCLONAL

Bulk quote request

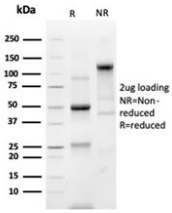
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	SLC45A3/7176R
Purity	Protein A/G affinity
UniProt	Q96JT2
Localization	Membrane, Vesicles, Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This recombinant Prostein antibody is available for research use only.



Prostein Antibody Microarray Specificity Validation. Analysis of HuProt(TM) protein microarray using Prostein / SLC45A3 antibody (clone SLC45A3/7176R). Screening against more than 19,000 full-length human proteins identifies SLC45A3 as the top-ranked target with the highest signal intensity, demonstrating strong and selective binding with minimal off-target interactions across the array. Signal strength is represented by the Z-score, which reflects standard deviations above the mean signal intensity for all proteins on the array, while the S-score represents the difference between the top-ranked signal and the next highest signal, indicating relative binding specificity and target selectivity of the antibody.



Prostein Antibody for IHC. Immunohistochemistry analysis of Prostein / SLC45A3 antibody staining in FFPE human prostate tissue using clone SLC45A3/7176R. Strong cytoplasmic and perinuclear staining is observed in prostate glandular epithelial cells lining luminal structures, consistent with Golgi-associated localization of Prostein, while surrounding stromal cells remain negative. The negative control inset using PBS in place of primary antibody shows no staining, confirming specificity of the signal. This staining pattern supports selective detection of SLC45A3 in prostate epithelial cells in immunohistochemistry applications. 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 recombinant Prostein antibody (clone SLC45A3/7176R) as confirmation of integrity and purity.

Description

Solute carrier family 45 member 3 (SLC45A3), also known as Prostein, is a prostate-specific protein localized to the Golgi apparatus of secretory epithelial cells. Prostein Antibody is used to detect SLC45A3 with an emphasis on specificity, supported by validation approaches that include large-scale protein microarray screening across thousands of human proteins.

Prostein antibody, also referred to as SLC45A3 antibody or prostate-specific androgen-regulated protein antibody, demonstrates highly selective target recognition consistent with its restricted biological expression profile. Protein microarray platforms provide a powerful orthogonal method for evaluating antibody specificity by assessing binding across diverse protein families in a single experiment. These analyses support the selective binding of Prostein Antibody to SLC45A3 while minimizing potential cross-reactivity with unrelated proteins.

Microarray-based validation offers advantages over traditional assay formats by enabling comprehensive evaluation of off-target interactions. This approach complements tissue-based methods such as immunohistochemistry and biochemical assays by providing an independent assessment of antibody binding behavior under controlled conditions. The integration of microarray specificity data strengthens confidence in antibody performance for applications requiring precise target detection.

The SLC45A3 protein is associated with intracellular trafficking processes within the Golgi apparatus and is expressed predominantly in prostate epithelial cells. This tissue-restricted expression pattern reinforces the expectation of selective detection when using Prostein Antibody in experimental systems. The combination of biological specificity and microarray-supported validation provides a strong framework for interpreting staining and detection results.

Recombinant Prostein Antibody clone SLC45A3/7176R provides a reliable tool for studies that demand high confidence in target specificity, including protein expression profiling, biomarker discovery, and mechanistic investigations. The use of protein microarray validation data, together with well-characterized biological expression patterns, supports its application in research settings where minimizing cross-reactivity and ensuring accurate detection are critical.

Application Notes

Optimal dilution of the Prostein Antibody / Microarray-Validated Specificity Antibody should be determined by the researcher.

Immunogen

A synthesized peptide corresponding to the N terminus of the human protein was used as the immunogen for the Prostein Antibody / Microarray-Validated Specificity Antibody.

Storage

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

Alternate Names

SLC45A3 antibody, Prostein antibody, Prostein specificity validated antibody, SLC45A3 microarray antibody, Prostein HuProt specificity antibody

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