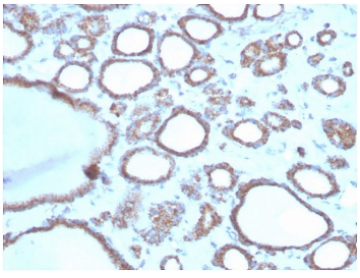
DBC2 Antibody / RHOBTB2 [clone DBC2/3362] (V8551)

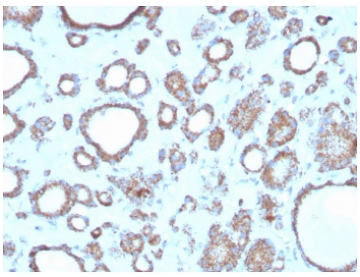
Catalog No.	Formulation	Size
V8551-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8551-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8551SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

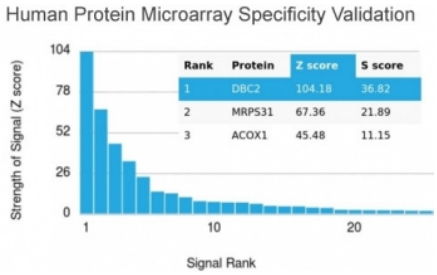
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, lambda
Clone Name	DBC2/3362
Purity	Protein G affinity chromatography
UniProt	Q9BYZ6
Localization	Secreted, cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This DBC2 antibody is available for research use only.



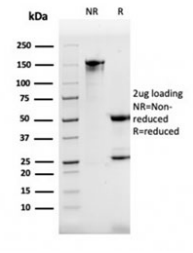
DBC2 Antibody Thyroid IHC. Immunohistochemistry analysis of DBC2 / RHOBTB2 in human thyroid tissue. Formalin-fixed, paraffin-embedded human thyroid tissue was stained with DBC2 antibody. Brown chromogenic signal indicates DBC2-positive epithelial cells within thyroid follicles. Heat-induced epitope retrieval was performed by boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 20 minutes followed by cooling prior to antibody incubation.



DBC2 Antibody Human Thyroid Immunohistochemistry. IHC staining of FFPE human thyroid with DBC2 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using DBC2 antibody. These results demonstrate the foremost specificity of the DBC2/3362 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free DBC2 antibody as confirmation of integrity and purity.

Description

DBC2 antibody recognizes Deleted in breast cancer gene 2, a tumor suppressor protein encoded by the RHOBTB2 gene and commonly referred to as DBC2 in the literature. Deleted in breast cancer gene 2 belongs to the RhoBTB subfamily of atypical Rho GTPase-related proteins and is primarily localized to the cytoplasm. Unlike classical Rho GTPases, DBC2 does not function as a molecular switch but instead acts as an adaptor protein involved in regulation of cell cycle progression, intracellular trafficking, and protein turnover. DBC2 Antibody is used in research settings to study tumor suppressor signaling and dysregulated cellular pathways associated with malignant transformation.

Deleted in breast cancer gene 2 was originally identified through recurrent chromosomal deletions and reduced expression in breast carcinoma, which led to its designation as a tumor suppressor. Subsequent studies have demonstrated altered RHOBTB2 expression across multiple cancer types, with loss or downregulation associated with increased cell proliferation, impaired apoptotic responses, and enhanced migratory behavior. DBC2 Antibody enables evaluation of these expression changes and supports investigation of cancer-associated signaling pathways and tumor progression mechanisms.

At the molecular level, Deleted in breast cancer gene 2 contains BTB domains that mediate interactions with Cullin 3-based E3 ubiquitin ligase complexes. Through these interactions, DBC2 contributes to ubiquitin-dependent degradation of specific protein substrates involved in cell division and stress response pathways. RHOBTB2 Antibody tools therefore support studies focused on ubiquitin signaling, proteostasis regulation, and intracellular quality control mechanisms in both normal and disease contexts.

Beyond oncology, RHOBTB2 has also been implicated in neurological and developmental processes, broadening interest in Deleted in breast cancer gene 2 beyond cancer biology alone. DBC2 Antibody allows visualization and assessment of cytoplasmic RHOBTB2 expression in experimental systems, supporting research into tissue-specific roles and disease-

associated alterations. Clone DBC2/3362 is designed to recognize Deleted in breast cancer gene 2 and may be applied to studies of tumor suppression, intracellular signaling, and ubiquitin-mediated regulatory pathways.

Explore our RHOBTB2 Antibody / Tumor Suppressor Marker clone DBC2/3361 page for additional validation data and research applications involving epithelial cancer biology, atypical Rho GTPase signaling, and tumor suppressor-associated cellular regulation pathways.

Application Notes

Optimal dilution of the DBC2 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 554-604 from the human protein was used as the immunogen for the DBC2 antibody.

Storage

Store the DBC2 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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