

DESCRIPTION

Species Reactivity	Human
Specificity	Detects a synthetic peptide specific for human HLA-DRB1 around amino acid 45 in Direct ELISA.
Source	Monoclonal Mouse IgG _{2B} Clone # 1091354
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Synthetic Peptide Accession # P01911
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

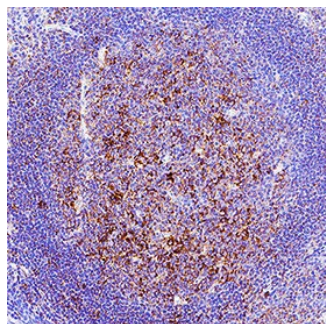
APPLICATIONS

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.

	Recommended Concentration	Sample
Immunohistochemistry	3-25 µg/mL	Immersion fixed paraffin-embedded sections of human tonsil

DATA

Immunohistochemistry



Detection of HLA DRB1 in Human Tonsil. HLA DRB1 was detected in immersion fixed paraffin-embedded sections of human tonsil using Mouse Anti-Human HLA DRB1 Monoclonal Antibody (Catalog # MAB11640) at 5 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cell surface. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

HLA-DRB1 is an HLA class II histocompatibility antigen. It is part of a heterodimer consisting of an alpha (DRA) and a beta chain (DRB) which are both anchored in the membrane. Class II molecules are constitutively expressed in professional APC's. HLA-II is an important immune system protein that plays a role in tumor antigen presentation, immune response, and immune surveillance. HLA-DRB1 presents antigenic peptides to HLA-DRB1-restricted CD4+ T-cells. Aberrant expression of HLA-II is closely related to the pathogenesis of tumors.

References:

1. "Entrez Gene: HLA-DRB1 major histocompatibility complex, Class II, DR beta I"
2. Hu JM, Li L, Chen YZ, Liu C, Cui X, Yin L, Yang L, Zou H, Pang L, Zhao J, Qi Y, Cao Y, Jiang J, Liang W, Li F. HLA-DRB1 and HLA-DQB1 methylation changes promote the occurrence and progression of Kazakh ESCC. Epigenetics. 2014 Oct;**9**(10):1366-73. doi: 10.4161/15592294.2014.969625. PMID: 25437052; PMCID: PMC4623353.
3. Zhao X, Li J, Zhu Q, Liang G, Xia W, He X, Zhu C, Qi H, Deng B, Chen X, Zhang J. HLA-A and HLA-DRB1 may play a unique role in ovarian teratoma-associated anti-N-methyl-D-aspartate receptor encephalitis. Reprod Biol Endocrinol. 2020 Nov 7;**18**(1):107. doi: 10.1186/s12958-020-00661-5. PMID: 33160385; PMCID: PMC7648266.