

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human Melanotransferrin/CD228 in ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 893438
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	HEK293 human embryonic kidney cell line transfected with human Melanotransferrin/CD228 Met1-Gly711 Accession # P08582
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

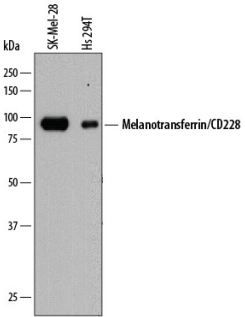
APPLICATIONS

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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-25 µg/mL	See Below
Simple Western	10 µg/mL	See Below

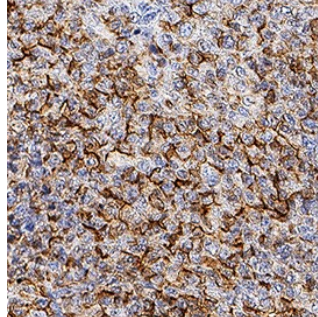
DATA

Western Blot



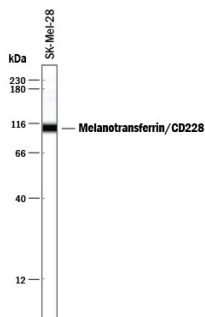
Detection of Human Melanotransferrin/CD228 by Western Blot.
Western blot shows lysates of SK-Mel-28 human malignant melanoma cell line and Hs 294T human melanoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Melanotransferrin/CD228 Monoclonal Antibody (Catalog # MAB8175) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Melanotransferrin/CD228 at approximately 90-95 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry




Melanotransferrin/CD228 in Human Melanoma Tissue.
Melanotransferrin/CD228 was detected in perfusion fixed frozen sections of human melanoma tissue using Mouse Anti-Human Melanotransferrin/CD228 Monoclonal Antibody (Catalog # MAB8175) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membrane and cytoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

Simple Western



Detection of Human Melanotransferrin/CD228 by Simple Western™. Simple Western lane view shows lysates of SK-Mel-28 human malignant melanoma cell line, loaded at 0.5 mg/mL. A specific band was detected for Melanotransferrin/CD228 at approximately 109 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human Melanotransferrin/CD228 Monoclonal Antibody (Catalog # MAB8175). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 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

Melanotransferrin, also known as MTF, CD228, melanoma-associated antigen p97, MAP97 and MF12, is a 90-97 kDa sialoglycoprotein member of the transferrin family. Unlike other transferrins, which are secreted, MTF is usually found tethered to the cell membrane by a glycosyl phosphatidyl inositol anchor, with only small amounts of soluble protein detected. MTF is highly expressed on melanoma cells, and at lower levels in salivary gland, pancreas, kidney and testis. Like other transferrins, MTF is an iron-binding protein, and may play roles in cellular proliferation, tumorigenesis, metastasis and migration. Full-length human, mouse and rat MTF is 738 amino acids (aa). Over aa 1-711, human MTF shares 85 and 86% aa identity with mouse and rat MTF, respectively.