



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 



Mouse anti Human HLA Class I Heavy Chain (Restricted expression)

Catalogue number: **MUB2036P**

Clone	HCA2
Isotype	IgG1
Product Type	Primary Antibodies
Units	0.1mg
Host	Mouse
Species reactivity	Human
Application	Electron microscopy ELISA Flow cytometry Immunoblotting Immunocytochemistry Immunohistochemistry (frozen) Immunohistochemistry (paraffin) Immunoprecipitation

Distributors

For Purchasing Information, please contact your local distributor

[Find Distributor](#)

Background

The HLA class I gene family is composed of a group of genes whose products encode cell surface glycoproteins of MW 40–45 kDa, associated non-covalently with the beta-2-microglobulin light chain. They include the three polymorphic molecules HLA-A, -B, and -C, which are ubiquitously expressed and which are able to present intracellular peptides to cytotoxic T cells. Three additional class I genes are known, commonly referred to as non-classical or class Ib genes, all highly homologous to the other class I genes and all of which associate with beta-2-microglobulin light chain. In humans, each of the class Ib genes appears to exhibit a distinct pattern of expression in developing and adult tissues. HLA-E transcripts are distributed widely in adult tissues and have also been found in the placenta and fetal liver. In the adult, the presence of HLA-F has been shown in skin, resting T cells, and B cells, whereas its expression during development has been reported in fetal liver and at low levels in placenta and extra-placental tissues. HLA-G was originally thought to be expressed only in certain populations of

MUB2036-
Figure.-HCA2--
(diluted-1-5000)-
immunostaining-
-of-human-
tonsil-tissue-in-
paraffin-section



placental trophoblasts, but low levels have also been found in a variety of human tissues. Recently it was shown that HLA class I expression in breast cancer cells can have a predictive value for chemotherapy response.

Source

HCA2 is a mouse monoclonal IgG1 antibody derived by fusion of SP2/0-Ag14 mouse myeloma cells with spleen cells from BALB/c mice immunized with HLA-B7 and -B40 heavy chains.

Product

Each vial contains 100 µl 1 mg/ml purified monoclonal antibody in PBS containing 0.09% sodium azide.

Applications

The antibody HCA2 reacts preferentially with HLA-A locus heavy chains. HCA2 was raised against free class I heavy chains of HLA, to obtain antibodies that would still react with denatured class I antigens, as they occur in Western blotting, conventional light microscopical analysis of formalin-fixed, paraffin-embedded sections, and cryo-immuno-electron microscopy. HCA2 indeed retains strong reactivity with free class I heavy chains in Western blots. HCA2 in particular reacts in a locus-specific manner by biochemical criteria. Conditions are described for use of HCA2 in immunohistochemical staining of formalin-fixed, paraffin-embedded sections (see references). HCA2 also produces strong reactivity in immuno-electron microscopy. Its use allows the determination of tissue and subcellular distribution of class I antigens. Optimal antibody dilutions for the different applications should be determined by titration; recommended range is 1:100 – 1:200 for flow cytometry, and for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent, and 1:100 – 1:1000 for immunoblotting applications.

Specificity

The mouse monoclonal antibody HCA2 recognize HLA class I heavy chains. The reactivity spectrum of HCA2 is composed of all HLA-A chains (except HLA-A24), as well as some HLA-B, HLA-C, HLA-E, HLA-F, and HLA-G chains.

Storage

Store at 4°C, or in small aliquots at -20°C.

References

1. Stam NJ, Vroom TM, Peters PJ, Pastoors EB, Ploegh HL. HLA-A- and HLA-B-specific monoclonal antibodies reactive with free heavy chains in western blots, in formalin-fixed, paraffin-embedded tissue sections and in cryo-immuno-electron

microscopy. *Int. Immunol.* 1990;2:113-125.
2. de Kruijf EM, van Nes JGH, Sajet A, Tummers QRJG, Putter H, Osanto S, Speetjens FM, Smit VTHBM, Liefers GJ, van de Velde CJH, Kuppen PJK. The predictive value of HLA Class I tumor cell expression and presence of intratumoral Tregs for chemotherapy in patients with early breast cancer. *Clin Cancer Res* 2010;16:1272-1280.
3. Hutter H, Hammer A, Blaschitz A, Hartmann M, Ebbesen P, Dohr G, Ziegler A, Uchanska-Ziegler B. Expression of HLA class I molecules in human first trimester and term placenta trophoblast. *Cell Tissue Res* 1996; 286:439-447.
4. Seitz C, Uchanska-Ziegler B, Zank A, Ziegler A. The monoclonal antibody HCA2 recognises a broadly shared epitope on selected classical as well as several non-classical HLA class I molecules. *Mol Immunol.* 1998;35:819-27.