

CD63 (NKI/C3)

Mouse anti-human CD63 Monoclonal Antibody (Clone NKI/C3)

REFERENCES AND PRESENTATIONS¹

- **ready-to-use (manual or LabVision AutoStainer)**
MAD-000543QD-3
MAD-000543QD-7
MAD-000543QD-12
- **Ready-to-use (MD-Stainer)²**
MAD-000543QD-3/V
MAD-000543QD/V
- **concentrated**
MAD-000543Q - 1:50 recommended dilution

COMPOSITION

Anti-human CD63 mouse monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

INTENDED USE : Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

CLONE: NKI/C3

Ig ISOTYPE: IgG1/k

SPECIES REACTIVITY: In vitro diagnostics in humans. Not tested in other species

DESCRIPTION AND APPLICATIONS:

The CD63 molecule, also called melanoma-associated antigen MLA1 or ME491, granulophysine, or membrane-associated lysosomal glycoprotein 3 (LAMP-3), is a 53-kDa glycoprotein belonging to the transmembrane 4 protein superfamily or tetraspanins. It is made up of 237 amino acids and is commonly expressed in melanoma tumour cells, where it is associated with early stages of tumour progression. The *ME491* gene, which encodes it, is located on the chromosomal region 12q13.2 and the lack of this protein has been observed in Hermansky-Pudlak syndrome, which is characterized by the presence of deficient lysosomes with dense granules and accumulation of ceroid material in reticuloendothelial system cells.

Functionally, CD63 plays an important role in intracellular transport and is a necessary molecule in the trafficking processes that take place in the PMEL luminal domain, which are essential in the development and maturation of melanocytes. Similarly, CD63 is important for leukocyte-endothelial cell adhesion through activation by P-selectin. Finally, CD63 appears to be involved in degranulation of mast cells in response to their activation through subunit beta of high affinity immunoglobulin receptor's epsilon chain (Ms4a2/FcεRI system).

CD63 antigen is widely distributed in normal tissues, being present in platelets' lysosomal granules, neutrophil granulocytes, and basophil granulocytes, as well as in a small proportion of inactive T cells, endothelial cells, and macrophages.

In tumour cells, CD63 is expressed in dysplastic nevi and radial growth phase melanomas, as well as in renal angiomyolipoma, cellular neurothekeoma, atypical fibroxanthoma and dermatofibrosarcoma protuberans, clear cell fibrous papule of the nose, and non-neural granular cell tumour of the skin. Its usefulness has also been proven in the differential diagnosis between renal oncocytomas, which show apical staining, and renal cell carcinomas with eosinophilic cytoplasm, which show diffuse cytoplasmic staining. Other tumours such as breast carcinomas, Merkel cell carcinomas, astrocytomas, and lung adenocarcinomas may also show positive staining, being, in the latter two cases, an indicator of a better prognosis.

IHC POSITIVE CONTROL: Normal skin, melanoma.

VISUALIZATION: Membrane and cytoplasm.

IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Vitro S.A EDTA buffer pH8³ for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and

¹ These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:

- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).
- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).

For different presentations (references / volumes) please contact the supplier.

² For Technical specifications for MD-Stainer, please contact your distributor.

³ Ref: MAD-004072R/D



protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]

- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY:  Stored at 2-8°C. Do not freeze.  Once the packaging has been opened it can be stored until the expiration date of the reagent indicated on the label. If the reagent has been stored under other conditions to those indicated in this document, the user must first check its correct performance taking into account the product warranty is no longer valid.

WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory@vitro.bio.

BIBLIOGRAPHY

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LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

	Expiration date
	Temperature limit
	Manufacturer
	Sufficient content for <n> assays

	Catalog number
	Lot code
	Refer to the instructions of use
	Medical product for <i>in vitro</i> diagnosis.
	Material safety data sheet

