

Product datasheet

anti-DNA mouse monoclonal, AC-30-10, lyophilized, purified

Short overview

Cat. No.	61014
Quantity	100 µg
Concentration	100 µg/ml after reconstitution with 1 ml dist. water

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgM
Clone	AC-30-10
Immunogen	Double- and single-stranded DNA
Formulation	Lyophilized; reconstitute in 1 ml dist. water (final solution contains 0.09% sodium azide, 0.5% BSA in PBS buffer, pH 7.4)
Conjugate	Unconjugated
Purification	Size exclusion chromatography
Storage before reconstitution	2-8°C until indicated expiry date
Storage after reconstitution	2-8°C
Intended use	Research use only
Application	Dot blot, ICC/IF, IHC
Reactivity	All species

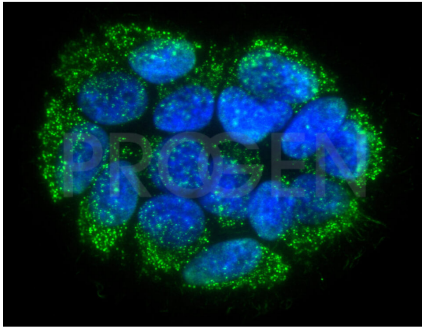
Applications

Dot Blot	Assay dependent (on nitrocellulose membrane, after baking at 70°C)
Immunocytochemistry (ICC)	1:200 (0.5 µg/ml)
Immunohistochemistry (IHC) - frozen	1:10 (10 µg/ml)
Immunohistochemistry (IHC) - paraffin	1:10 (10 µg/ml, microwave treatment recommended)

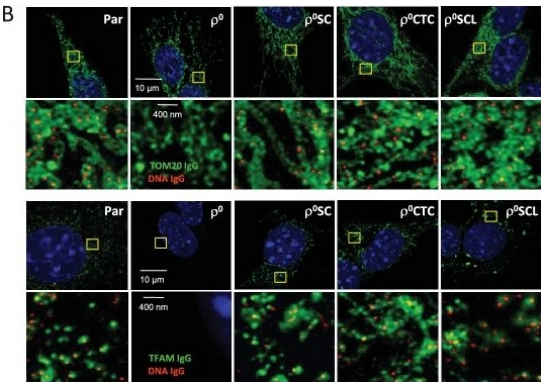
Background

AC-30-10 stains DNA present in the nuclei and the mitochondria of cells and tissues. It is also a reliable positive control in assays for detection of DNA antibodies, especially for the detection of autoantibodies in autoimmune diseases. Due to the high sensitivity it can also be used for the detection of mycoplasma contamination in cell cultures. Binding characteristics: reacts with all forms of native and denatured DNA; reactive also with lambda DNA and synthetic DNA. Tested cultured cell lines: XLKE-A6 (Xenopus), RVF-SMC, PTK-2, HeLa.

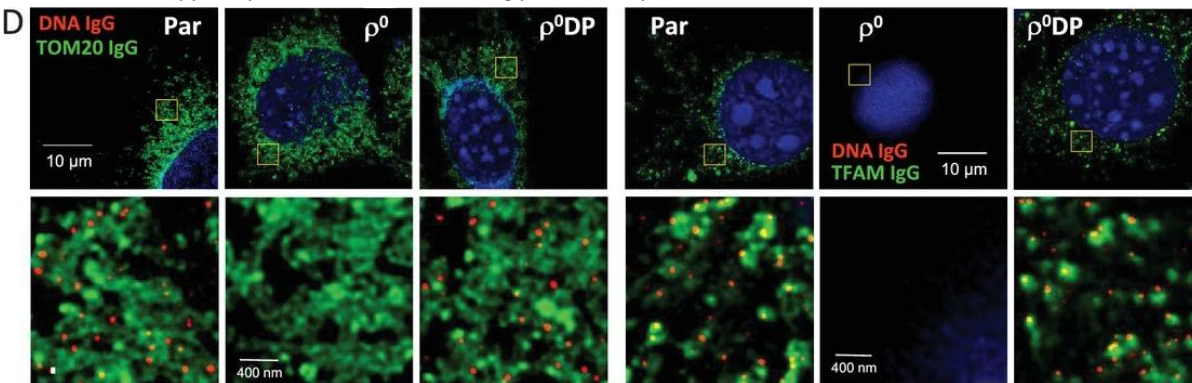
Product images



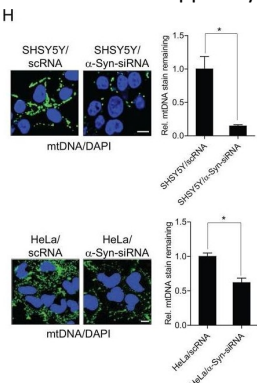
Immunofluorescence analysis of HeLa cells with anti-DNA antibody. Fixation was performed using 3% paraformaldehyde for 10 min at RT. Cells were blocked with 5% BSA in PBST (PBS + 0.1% Tween 20) for 1 h at RT and permeabilized with 0.3% Triton-X 100 in PBS for 10 min at RT. The primary antibody anti-DNA mouse monoclonal, AC-30-10 (Cat. No. 690014) was diluted in blocking buffer (antibody concentration 0.5 µg/ml) and incubated over-night at 4°C. The secondary antibody goat anti-mouse IgM Alexa488 was also diluted in blocking buffer (antibody concentration 2.5 µg/ml) and incubated for 30 min at 37°C and 30 min at RT. Nuclear DNA was stained with DAPI in blue.



[Dong, L. F., Kovarova, J., et al. Horizontal transfer of whole mitochondria restores tumorigenic potential in mitochondrial DNA-deficient cancer cells. Elife. 2017-02-15.](#) Species/Reactant: Mus musculus (House mouse) Applications: Immunocytochemistry-immunofluorescence Image collected and cropped by CiteAb from the following publication, provided under a CC-BY licence.



[Dong, L. F., Kovarova, J., et al. Horizontal transfer of whole mitochondria restores tumorigenic potential in mitochondrial DNA-deficient cancer cells. Elife. 2017-02-15.](#) Species/Reactant: Mus musculus (House mouse) Applications: Immunocytochemistry-immunofluorescence Image collected and cropped by CiteAb from the following publication, provided under a CC-BY licence.



[Vo, M. T., Choi, S. H., et al. Tristetraprolin inhibits mitochondrial function through suppression of \$\alpha\$ -Synuclein expression in cancer cells. Oncotarget. 2017-06-27.](#) Species/Reactant: Homo sapiens (Human) Applications: Immunocytochemistry-immunofluorescence Image collected and

References

Publication	Species	Application
Dong, L. F. et al. Horizontal transfer of whole mitochondria restores tumorigenic potential in mitochondrial DNA-deficient cancer cells. Elife 6, (2017).	mouse	ICC-IF
Xu, J. et al. Synergistic effects of autophagy/mitophagy inhibitors and magnolol promote apoptosis and antitumor efficacy., Acta Pharm Sin B 11, 3966-3982, (2021).	human	ICC-IF
Hensen, F. et al. Mitochondrial RNA granules are critically dependent on mtDNA replication factors Twinkle and mtSSB. Nucleic.Acids.Res. , (2019)	human	ICC-IF
Lazarou, M. et al. The ubiquitin kinase PINK1 recruits autophagy receptors to induce mitophagy. Nature 524, 309-314 (2015).	human	ICC-IF
Legros, F., Malka, F., Frachon, P., Lombes, A. & Rojo, M. Organization and dynamics of human mitochondrial DNA. J. Cell Sci. 117, 2653-2662 (2004).	human	ICC-IF