

mp21 (mouse specific) | Validation File

TARGET mouse p21

CLONE NAME HUGO291

DESCRIPTION Rat monoclonal

ANTIGEN USED HIS-GST-mp21 recombinant protein (full length protein)

ISOTYPE IgG2a

SPECIES REACTIVITY mouse

LOCALIZATION Nuclear

POSITIVE CONTROL Mouse skin papilloma

STORAGE BUFFER Tissue culture supernatant: 0.02% sodium azide

STORAGE Aliquot and store at 4C. Do not freeze



Recommended



Inconclusive



Not Recommended



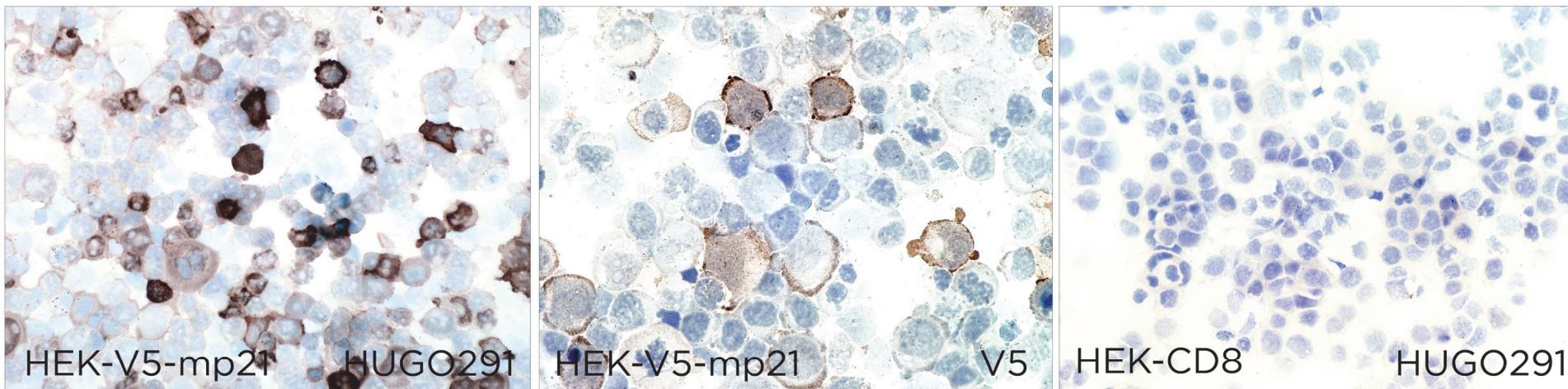
Not Tested

APPLICATIONS

ICC | *Immunocytochemistry*

HUGO291 is able to detect mouse p21 protein in immunocytochemistry

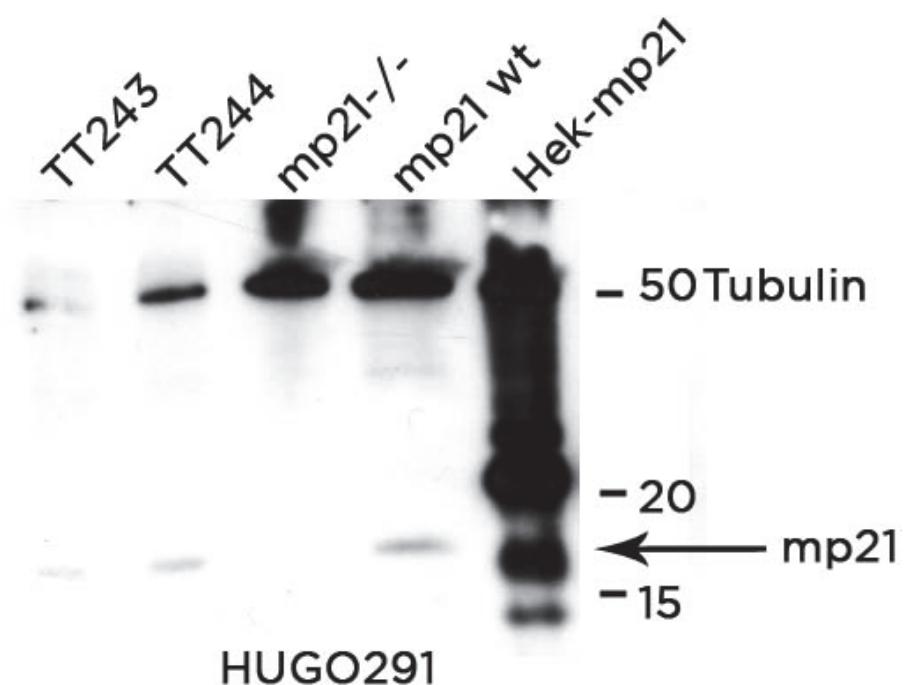
To confirm that HUGO291 mAb recognizes mouse p21 protein, immunocytochemistry on frozen cytocentrifuge preparations of V5-mp21 expressed in HEK293 cell line was performed. Cytocentrifuge preparation of human CD8 was used as a negative control.



| WB | ***Western Blotting***

HUGO291 mAb is able to detect mouse p21 protein by WB.

DILUTION Neat supernatant and 1:100 purified



Predicted molecular weight: **18KDa**

Observed molecular weight: **18KDa**

LANES

Lane 1 TT243 mefs no irradiated	(20ug) (-)
Lane 2 TT244 mefs irradiated with 10Gy	(20ug) (+)
Lane 3 p21 ^{-/-} KO mefs	(70ug) (-)
Lane 4 p21 WT mefs	(70ug) (+)
Lane 5 HEK-V5-mp21 transfected cells	(20ug) (+)

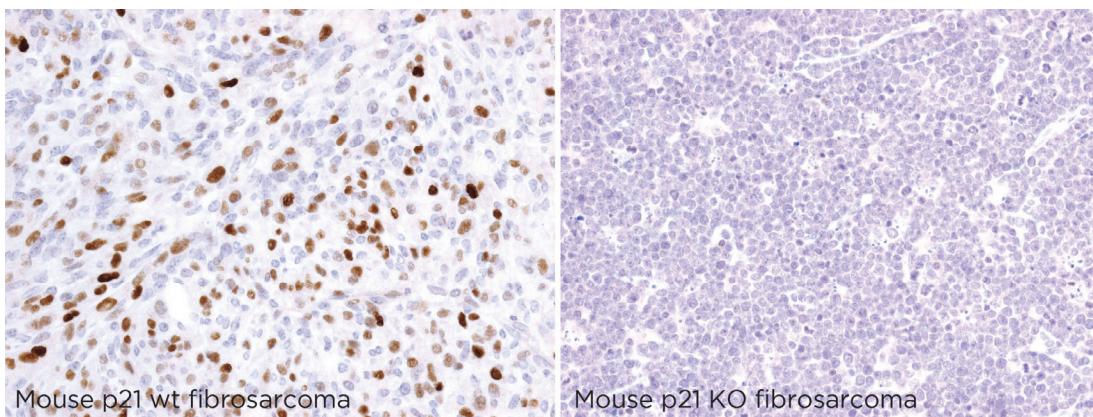
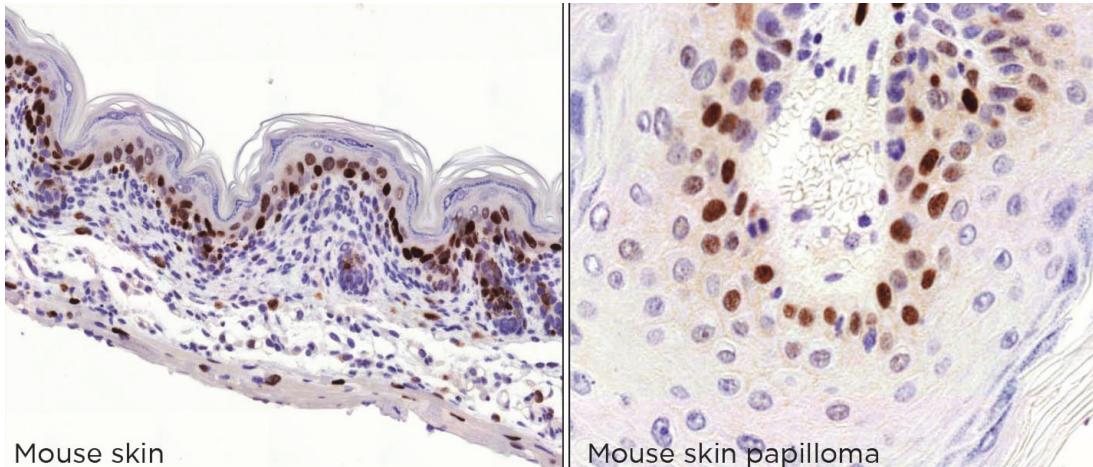
| IHC-P | **Immunohistochemistry (paraffin)**

HUGO291 mAb can be used to detect p21 protein in mouse paraffin tissues

TISSUE SAMPLE Mouse skin (conditional TRF1 knock out (K5-Cre)), mouse skin papilloma, mouse p21WT fibrosarcoma and mouse p21KO fibrosarcoma.

DILUTION neat supernatant and 1:100 purified

DETECTION SYSTEM Discovery XT (Ventana) CC1 OmniMap rabbit. Please add a rabbit anti-rat biotinilated.



 | IF | **Immunofluorescence (paraffin)** Not tested

 | IHC-F | **Immunohistochemistry (frozen)** Not tested

 | FC | **Flow Cytometry** Not tested

 | IP | **Immunoprecipitation** Not Tested

SOLD BY: Abcam

REFERENCES

Muñoz-Espín D, Cañamero M, Maraver A, Gómez-López G, Contreras J, Murillo-Cuesta S, Rodríguez-Baeza A, Varela-Nieto I, Ruberte J, Collado M, Serrano M. Programmed cell senescence during mammalian embryonic development. *Cell.* 2013 Nov 21;155(5):1104-18.

Ogrodnik M, Miwa S, Tchkonia T, Tiniakos D, Wilson CL, Lahat A, Day CP, Burt A, Palmer A, Anstee QM, Grellscheid SN, Hoeijmakers JHJ, Barnhoorn S, Mann DA, Bird TG, Vermeij WP, Kirkland JL, Passos JF, von Zglinicki T, Jurk D. Cellular senescence drives age-dependent hepatic steatosis. *Nat Commun.* 2017 Jun 13;8:15691.

Egashira M, Hirota Y, Shimizu-Hirota R, Saito-Fujita T, Haraguchi H, Matsumoto L, Matsuo M, Hiraoka T, Tanaka T, Akaeda S, Takehisa C, Saito-Kanatani M, Maeda KI, Fujii T, Osuga Y. F4/80+ Macrophages Contribute to Clearance of Senescent Cells in the Mouse Postpartum Uterus. *Endocrinology.* 2017 Jul 1;158(7):2344-2353.

Li M, Yang X, Lu X, Dai N, Zhang S, Cheng Y, Zhang L, Yang Y, Liu Y, Yang Z, Wang D, Wilson DM. APE1 deficiency promotes cellular senescence and premature aging features. *Nucleic Acids Res.* 2018 Jun 20;46(11):5664-5677.

Li Y, Sun W, Han N, Zou Y, Yin D. Curcumin inhibits proliferation, migration, invasion and promotes apoptosis of retinoblastoma cell lines through modulation of miR-99a and JAK/STAT pathway. *BMC Cancer.* 2018 Dec 10;18(1):1230.

Tominaga T, Shimada R, Okada Y, Kawamata T, Kibayashi K. Senescence-associated- β -galactosidase staining following traumatic brain injury in the mouse cerebrum. *PLoS One.* 2019 Mar 11;14(3):e0213673.