HES1

CONTACT INFORMATION:	Monoclonal Antibodies Unit. Centro Nacional de Investigaciones Oncológicas
STATUS:	Validated
TYPE:	Rat monoclonal
CLONE NAME:	HS395A
PROTEIN:	Transcription factor HES-1 - Hairy and Enhancer of split-1
PROTEIN WEB:	https://www.uniprot.org/uniprot/P35428
ANTIGEN USED:	HIS-mHES1 (aa93-aa282 fragment)
FUSION PARTNER:	myeloma p3-NS1/Ag4-1 (NS1) cells
ISOTYPE:	IgG2b
SPECIES REACTIVITY:	Mouse and human
PREPARATION AND STORAGE:	Aliquot and store at 4C. Do not freeze

DESCRIPTION

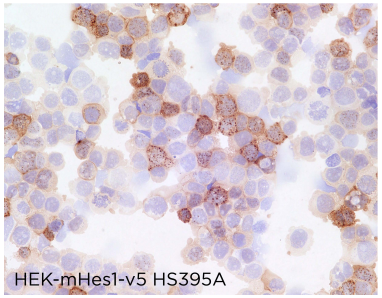
Transcriptional repressor of genes that require a bHLH protein for their transcription. May act as a negative regulator of myogenesis by inhibiting the functions of MYOD1 and ASH1 (By similarity). Binds DNA on N-box motifs: 5'-CACNAG-3' with high affinity and on E-box motifs: 5'-CANNTG-3' with low affinity. May play a role in a functional FA core complex response to DNA cross-link damage, being required for the stability and nuclear localization of FA core complex proteins, as well as for FANCD2 monoubiquitination in response to DNA damage.

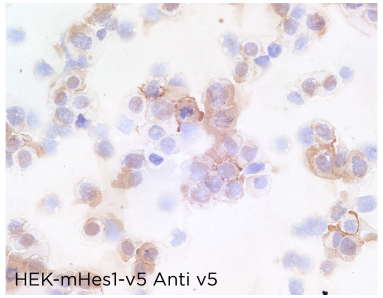
REFERENCES

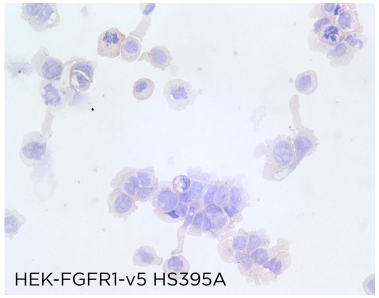
Maraver A, Fernandez-Marcos PJ, Cash TP, Mendez-Pertuz M, Dueñas M, Maietta P, Martinelli P, Muñoz-Martin M, Martínez-Fernández M, Cañamero M, Roncador G, Martinez-Torrecuadrada JL, Grivas D, de la Pompa JL, Valencia A, Paramio JM, Real FX, Serrano M. NOTCH pathway inactivation promotes bladder cancer progression. J Clin Invest. 2015 Feb;125(2):824-30.

APPLICATIONS

IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species
Frozen tissue and cytospins									
Recommended	HS395A	Neat	supernatant						
Paraffin tissue									
Recommended	HS395A	Neat	supernatant						
Immunofluorescence									
Recommended	HS395A	1:50	purified						

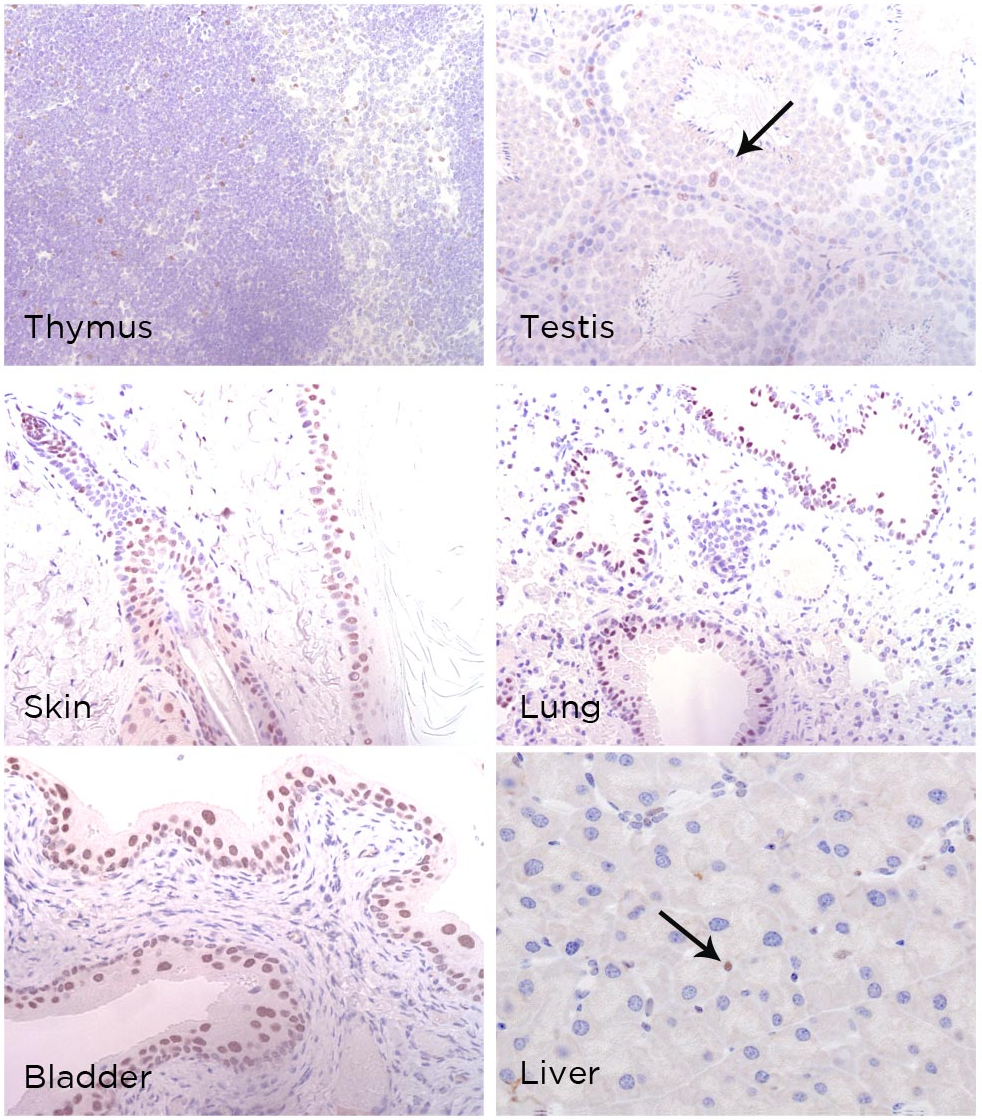




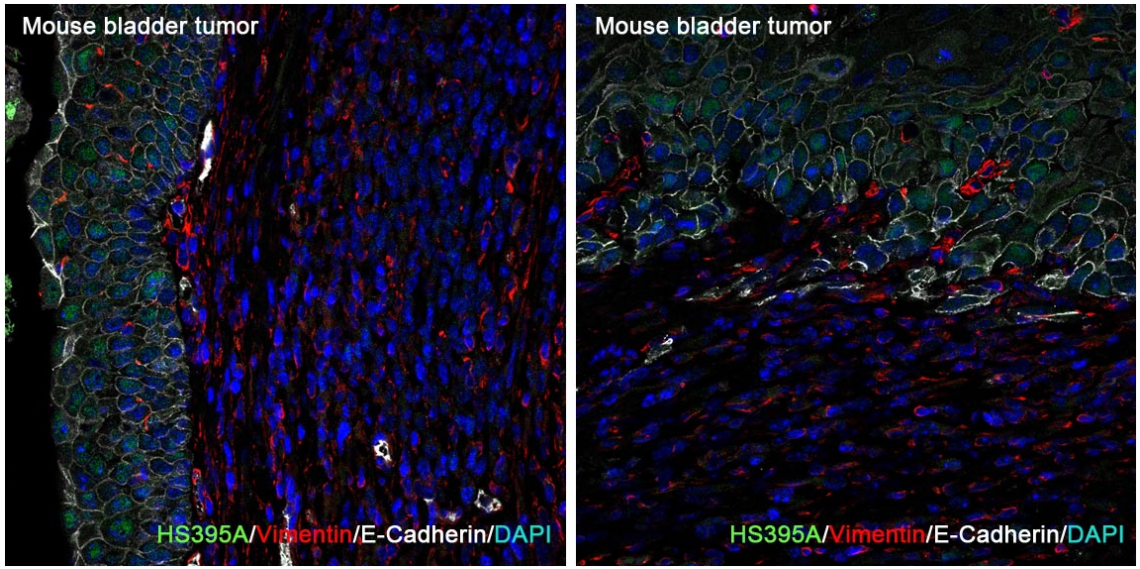


HS395A is able to detect mouse Hes1 protein in immunocytochemistry

To confirm that HS395A mAb recognizes mouse HES1 protein, immunohistochemistry on frozen cytospins preparations of V5-tagged mHES1 expressed in HEK293T cell line was performed. Anti-V5 antibody was used as positive control. HEK-FGFR1-v5 vere used as a negative control.



HS395A mAb can be used to detect Hes1 protein in mouse paraffin tissues



HS395A mAb can be used to detect mouse Hes1 protein by immunofluorescence