

# hnRNP A1/HNRNPA1L2 (F-8): sc-365486

## BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription and pre-mRNA processing as well as mature mRNA transport to the cytoplasm and translation. They also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA polymerase II. There are approximately 20 known hnRNP proteins, and their complexes are the major constituents of the spliceosome. The majority of hnRNP protein components are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm. The A/B subfamily of hnRNPs include A1, A2/B1, A3 and A0, and in *Xenopus*, hnRNP A1, A2 and A3 are ubiquitously expressed throughout development as well as in adult tissues. hnRNP A1 and A2/B1 regulate the processing of pre-mRNA by directly antagonizing the association of various splicing factors and by influencing the splice site selection on pre-mRNA. The hnRNP A0 gene is distinct from the other A/B family members, and it encodes a low-abundance protein, which is implicated in mRNA stability.

## CHROMOSOMAL LOCATION

Genetic locus: HNRNPA1 (human) mapping to 12q13.13, HNRNPA1L2 (human) mapping to 13q14.3; Hnrpa1 (mouse) mapping to 15 F3, Hnrpa1l2-ps (mouse) mapping to 13 C1.

## SOURCE

hnRNP A1/HNRNPA1L2 (F-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 231-257 within an internal region of hnRNP A1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365486 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

hnRNP A1/HNRNPA1L2 (F-8) is recommended for detection of hnRNP A1 and HNRNPA1L2 mouse and human origin and hnRNP A1 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

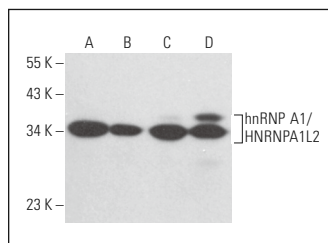
Molecular Weight of hnRNP A1/HNRNPA1L2 isoforms: 29/34/39 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Jurkat whole cell lysate: sc-2204 or KNRK whole cell lysate: sc-2214.

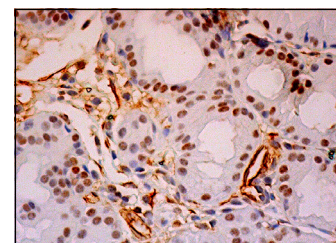
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



hnRNP A1/HNRNPA1L2 (F-8): sc-365486. Western blot analysis of hnRNP A1/HNRNPA1L2 expression in Jurkat (A), MCF7 (B), SW480 (C) and KNRK (D) whole cell lysates.



hnRNP A1/HNRNPA1L2 (F-8): sc-365486. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. Fujiwara, Y., et al. 2013. Discovery of a novel type of autophagy targeting RNA. *Autophagy* 9: 403-409.
2. Fujiwara, Y., et al. 2015. An RNAutophagy/DNAutophagy receptor, LAMP2C, possesses an arginine-rich motif that mediates RNA/DNA-binding. *Biochem. Biophys. Res. Commun.* 460: 281-286.
3. Chen, C.Y., et al. 2016. Heterogeneous nuclear ribonucleoproteins A1 and A2 modulate expression of Tid1 isoforms and EGFR signaling in non-small cell lung cancer. *Oncotarget* 7: 16760-16772.
4. Wang, T.H., et al. 2019. Heterogeneous nuclear ribonucleoproteins A1 and A2 function in telomerase-dependent maintenance of telomeres. *Cancers* 11: 334.
5. Tang, S., et al. 2020. The long noncoding RNA Blnc1 protects against diet-induced obesity by promoting mitochondrial function in white fat. *Diabetes Metab. Syndr. Obes.* 13: 1189-1201.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



See **hnRNP A1 (4B10): sc-32301** for hnRNP A1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.