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sigma-aldrich.com

3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765   Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-hnRNP-E1/E2 (N-terminal)
produced in rabbit, affinity isolated antibody

Product Number **R4155**

Product Description
Anti-hnRNP-E1/E2 (N-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at N-terminal of human hnRNP-E1 (GeneID: 5093), conjugated to KLH via an added cysteine residue. The immunizing peptide is conserved between human, rat, and mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-hnRNP-E1/E2 (N-terminal) (also known as PCBP1/2 or αCP1and αCP2) specifically recognizes human, mouse, and rat hnRNP-E1/E2. Applications include immunoblotting (~37 kDa) and immuno-precipitation. Detection of the hnRNP-E1/E2 bands by immunoblotting is specifically inhibited with the immunizing peptide.

RNA polymerase II transcripts in the nucleus are complexed with several proteins called heterogeneous nuclear ribonucleoproteins (hnRNPs). These proteins are important in biological activities such as transcription, pre-mRNA processing, cytoplasmic mRNA translation and turnover. hnRNPs can be isolated either by immunoprecipitation or by sucrose gradient fractionation of cell extracts. Isolated hnRNPs consist of protein groups named A to U, and many of these protein groups consist of more than one isoform.[1-3] The hnRNP-E proteins consist of five major isoforms, hnRNP-E1-E4 and hnRNP-E2-KL (a splice variant of hnRNP-E2), which belongs to the triple KH domain containing protein family.[4] All isoforms of hnRNP-E contain three repeats of the ribonucleoprotein K homology (KH) domain, designated KH1, KH2, KH3, each domain interacting independently with target RNA sequence.[5]

hnRNP-E proteins have been implicated in a wide variety of processes including mRNA stabilization, translation enhancement, and translation silencing.[6,7] hnRNP-E1 and hnRNP-E2 are predominantly nuclear with specific enrichment of hnRNP-E1 in nuclear speckles. hnRNP-E3 and hnRNP-E4 are restricted to the cytoplasm, and αCP2-KL is present at significant levels in both the nucleus and the cytoplasm.[8] Among the hnRNP-E family, hnRNP-E1 and hnRNP-E2 share the highest amino acid sequence similarity (89%).

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer
For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile
Immunoblotting: a working antibody concentration of 0.5–1 μg/mL is recommended, using K562 cell extract.

Immunoprecipitation: a working antibody amount of 5–10 μg is recommended, using K562 cell extract.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

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