



UNR (h4): 293 Lysate: sc-158049

BACKGROUND

UNR, also known as CSDE1 (cold shock domain containing E1, RNA-binding) or NRU, is a 798 amino acid protein that localizes to the cytoplasm and contains nine CDS (cold shock) domains. Existing as a component of the multi-protein autoregulatory ribonucleoprotein complex (ARC), UNR functions as an RNA-binding protein that is required for the initiation of rhinovirus RNA translation and is thought to be involved in translationally coupled mRNA turnover. UNR is expressed as two isoforms, designated long and short, and shares over 98% amino acid identity with its rat counterpart, suggesting a conserved role between species. The gene encoding UNR maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

1. Jeffers, M., et al. 1990. Characterization of UNR; a gene closely linked to N-Ras. *Nucleic Acids Res.* 18: 4891-4899.
2. Hunt, S.L., et al. 1999. UNR, a cellular cytoplasmic RNA-binding protein with five cold-shock domains, is required for internal initiation of translation of human rhinovirus RNA. *Genes Dev.* 13: 437-448.
3. Grosset, C., et al. 2000. A mechanism for translationally coupled mRNA turnover: interaction between the poly(A) tail and a c-Fos RNA coding determinant via a protein complex. *Cell.* 103: 29-40.
4. Chang, T.C., et al. 2004. UNR, a new partner of poly(A)-binding protein, plays a key role in translationally coupled mRNA turnover mediated by the c-Fos major coding-region determinant. *Genes Dev.* 18: 2010-2023.
5. Cornelis, S., et al. 2005. UNR translation can be driven by an IRES element that is negatively regulated by polypyrimidine tract binding protein. *Nucleic Acids Res.* 33: 3095-3108.
6. Patel, G.P., et al. 2005. The autoregulatory translational control element of poly(A)-binding protein mRNA forms a heteromeric ribonucleoprotein complex. *Nucleic Acids Res.* 33: 7074-7089.
7. Schepens, B., et al. 2007. A role for hnRNP C1/C2 and UNR in internal initiation of translation during mitosis. *EMBO J.* 26: 158-169.
8. Anderson, E.C., et al. 2007. Internal initiation of translation from the human rhinovirus-2 internal ribosome entry site requires the binding of UNR to two distinct sites on the 5' untranslated region. *J. Gen. Virol.* 88: 3043-3052.
9. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 191510. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: CSDE1 (human) mapping to 1p13.2.

PRODUCT

UNR (h4): 293 Lysate represents a lysate of human UNR transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

UNR (h4): 293 Lysate is suitable as a Western Blotting positive control for human reactive UNR antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.