

## Y14 (C-20): sc-23444

### BACKGROUND

The exon junction complex (EJC) is a multiprotein complex that assembles approximately 20-24 nucleotides upstream of exon-exon junctions in pre-mRNAs. It is involved in mRNA export, cytoplasmic localization and nonsense-mediated mRNA decay. Members of the EJC include Y14, Aly/REF, Magoh, RNPS1, SRm160 and DEK. Aly/REF, Magoh and Y14, also designated RBM8, make up the core of the EJC, and these proteins remain stably bound to spliced mRNAs in the cytoplasm until they are translated. Therefore, Y14, Aly/REF and Magoh have the ability to communicate to the cytoplasm the processing history of the mRNA, including the position of the removed introns. The gene encoding human Y14 encodes three transcripts. Y14 is an ubiquitously expressed protein. Although Y14 shuttles to the cytoplasm, it is predominantly detected in the nucleus and is colocalized with oskar mRNA at the posterior pole of the cell.

### REFERENCES

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- Hachet, O. and Ephrussi, A. 2001. *Drosophila* Y14 shuttles to the posterior of the oocyte and is required for oskar mRNA transport. *Curr. Biol.* 11: 1666-1674.
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### CHROMOSOMAL LOCATION

Genetic locus: RBM8A (human) mapping to 1q21.1; Rbm8a (mouse) mapping to 3 F2.1.

### SOURCE

Y14 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Y14 of human origin.

### STORAGE

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

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23444 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Y14 (C-20) is recommended for detection of Y14 of human origin and RBM8 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Y14 (C-20) is also recommended for detection of Y14 of human origin and RBM8 of mouse and rat origin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Y14 siRNA (h): sc-38345, RBM8 siRNA (m): sc-38346, Y14 shRNA Plasmid (h): sc-38345-SH, RBM8 shRNA Plasmid (m): sc-38346-SH, Y14 shRNA (h) Lentiviral Particles: sc-38345-V and RBM8 shRNA (m) Lentiviral Particles: sc-38346-V.

Molecular Weight of Y14: 24 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Y14 (4C4): sc-32312**, our highly recommended monoclonal alternative to Y14 (C-20).