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RUO DATA SHEET

RRM1

Concentrated Rabbit Monoclonal Antibody

Intended Use:
For Research Use Only (RUO)

Epitomics' Rabbit Monoclonal Anti-human ribonucleoside-diphosphate reductase large subunit (RRM1), Clone EP242, is intended for use to qualitatively identify RRM1 by light microscopy in sections of formalin fixed, paraffin embedded tissue using immunohistochemical detection methodology.

Catalog number	Description	Dilution
AC-0217RUO	0.1 ml, concentrated	1:20
AC-0217RUOB	0.5 ml, concentrated	1:20
AC-0217RUOC	1 ml, concentrated	1:20
AC-0217RUOBULK	2 ml or more, concentrated	1:20

Immunogen: A synthetic peptide corresponding to residues of human RRM1 protein
Source: Rabbit Monoclonal Antibody
Clone ID: EP242
Isotype: Rabbit IgG
Application: Immunohistochemistry for formalin-fixed paraffin-embedded tissue

Summary and Explanation:
Ribonucleoside-diphosphate reductase large subunit (RRM1) is one of two non-identical subunits that constitute ribonucleoside-diphosphate reductase, an enzyme essential for the production of deoxyribonucleotides prior to DNA synthesis in S phase of dividing cells.

Studies have shown that RRM1 controls cell proliferation through deoxynucleotide production and metastatic propensity through PTEN induction. RRM1 expression is significantly correlated with the expression of ERCC1 and PTEN in non-small-cell lung cancer (NSCLC). Tumors with high expression of RRM1 showed slow progression.

Reagent Provided:
Antibody to RRM1 is affinity purified and diluted in 10 mM phosphate buffered saline (PBS), pH 7.2 containing 1% bovine serum albumin (BSA) and 0.09% sodium azide (NaN_3).

Storage and Stability:
Store at 2-8 °C. Do not use after expiration date provided on the vial. End user must validate any storage conditions other than those specified.

Procedures Recommended:
1. Pretreatment: Epitope retrieval using Tris/EDTA buffer (catalog #: SP-0004) with a pressure cooker.
2. Endogenous peroxidase block: Block for 10 minutes at room temperature using peroxidase solution (catalog #: SP-0002).
3. Protein block: Block for 10 minutes at room temperature using blocking solution (catalog #: SP-0003).
4. Primary antibody: Incubate for 30 minutes.
5. Detection: Follow instructions from the selected detection system (EpiPrecision™, a Biotin Streptavitin-HRP Detection, catalog #: DK-0001, 0003, or EpiVision™, a Rabbit Polymer Detection, catalog # DK-0002, 0004).

The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by individual laboratory.

Performance Characteristics:
This antibody gives cytoplasm staining in positive cells. The recommended positive control is Tonsils for normal tissue.

Limitations:
Immunohistochemistry is a complex process. Variation in tissue selection, tissue processing, antigen retrieval, peroxidase activity, detection systems and improper counterstaining may cause variation in results.

References:
1. Maglott D*, et al.*: *Nucleic Acids Res* 2005, 33:D54-58
2. Bepler G*, et al.*: *J Clin Oncol* 2004, 22:1878-1885
3. Zheng Z*, et al.*: *N Engl J Med* 2007, 356:800-808

100633 Rev. 02

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