

## IVD DATA SHEET

### ARG-1

Concentrated Rabbit Monoclonal Antibody

#### Intended Use:

For in Vitro Diagnostic Use

Epitomics' Rabbit Monoclonal Anti-Human ARG-1, Clone EP261, is intended for use to qualitatively identify ARG-1 by light microscopy in sections of formalin-fixed, paraffin-embedded tissue using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient's clinical history and other diagnostic tests. Evaluation must be performed by a qualified pathologist.

Catalog number	Description	Dilution
AC-0227A	0.1 ml, concentrated	1:100-1:200
AC-0227B	0.5 ml, concentrated	1:100-1:200
AC-0227	1 ml, concentrated	1:100-1:200
AC-0227BULK	2 ml or more, concentrated	1:100-1:200

**Immunogen:** A synthetic peptide corresponding to residues of human ARG-1 protein

**Source:** Rabbit Monoclonal Antibody

**Clone ID:** EP261

**Isotype:** Rabbit IgG

**Application:** Immunohistochemistry for formalin-fixed paraffin-embedded tissue

#### Summary and Explanation:

Arginase is a manganese metalloenzyme that catalyzes the hydrolysis of arginine to generate ornithine and urea. Arginase I and II are isoenzymes which differ in subcellular localization, regulation, and possibly function. Arginase I is a cytosolic enzyme, which is expressed mainly in the liver as part of the urea cycle, whereas arginase II is a mitochondrial protein found in a variety of tissues.

Antibody to ARG-1 labels hepatocytes in normal tissues and granulocytes in peripheral blood. ARG-1 is a sensitive and specific marker for identification of hepatocellular carcinoma.

#### Reagent Provided:

Antibody to ARG-1 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<sub>3</sub>).

#### Storage and Stability:

Store at 2-8 °C. Do not use after expiration date indicated on 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 Streptavidin-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 the individual laboratory.

#### Performance Characteristics:

This antibody gives cytoplasmic/nuclear staining in positive cells. The recommended positive controls are Liver for normal tissue and Hepatocellular carcinoma for abnormal 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. Haraguchi Y, et al.: *Proc Natl Acad Sci U S A* 1987, 84:412-415
2. Yan BC, et al.: *Am J Surg Pathol* 2010, 34:1147-1154
3. Radwan NA, et al.: *Diagn Pathol* 2012, 7:149
4. Timek DT, et al.: *Am J Clin Pathol* 2012, 138:203-210
5. Fujiwara M, et al.: *Cancer Cytopathol* 2012, 120:230-237

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