

# 5-Formylcytosine antibody (pAb)

Catalog No.: RA9050

### **Basic Information**

Molecular weight

Category

Polyclonal antibody

**Applications** 

DB, ICC, IF, WB

**Cross-Reactivity** 

Not Species Specific

## **Recommended Dilutions**

**DB**  $0.5-2 \,\mu \text{g/ml}$ 

## **Background**

DNA methylation is an epigenetic event in which DNA methyltransferases (DNMTs) catalyze the reaction of a methyl group to the fifth carbon of cytosine in a CpG dinucleotide. This modification helps to control gene expression and is also involved in genomic imprinting, while aberrant DNA methylation is often associated with disease. 5methylcytosine is a modified base that is found in the DNA of plants and vertebrates. A second type of DNA methylation exists, 5-hydroxymethylcytosine (5-hydroxy methylcytosine, 5-hmC). This results from the enzymatic conversion of 5methylcytosine into 5-hydroxymethylcytosine by the TET family of cytosine oxygenases. Iterative activity of TET on 5hydroxymethylcytosine results in the conversion of 5-hmC into 5-formylcytosine and 5-carboxylcytosine. An increase in levels of 5-formylcytosine and 5-carboxylcytosine are detected in the mouse male pronucleus following fertilization, which is gradually diluted by DNA replication.

### **Product Information**

Source Rabbit

**Isotype** IgG

Purification Protein A Chromatography

**Storage buffer** Purified IgG in PBS with 30% glycerol

and 0.035% sodium azide. Sodium

azide is highly toxic.

Storage Conditions Some products may be shipped at

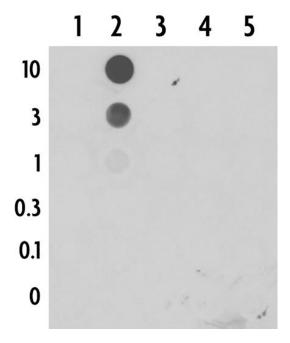
room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice

when not in storage.



Note: For in vitro research use only, not for diagnostic or therapeutic use, This product is not a medical device. 注意:在体外研究使用,不用于诊断或治疗用途,本产品不是医疗装置!





5-Formylcytosine antibody (pAb) tested by DNA dot blot Single-stranded 38 nt DNA oligonucleotides (amount of oligo in nanograms listed on the left side of the blot) corresponding to the immunogen and related sequences were spotted onto nitrocellulose and probed with the antibody at 2 ug/ml. Lane 1: oligo containing unmodified cytidine. Lane 2: oligo containing 5-methylcytidine. Lane 3: oligo containing 5-hydroxymethylcytidine. Lane 4: oligo containing 5-formylcytidine. Lane 5: oligo containing 5-carboxylcytidine.



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