

## TECHNICAL DATASHEET

# 3-mC polyclonal antibody

Full name: 3-methylcytosine polyclonal antibody

Cat. No. C15410209	Specificity: Human, mouse, other (wide range): positive
<b>Type:</b> Polyclonal <b>Source:</b> Rabbit	<b>Purity:</b> Protein G purified polyclonal antibody in PBS containing 0.05% azide and 0.05% ProClin 300.
Lot <b>#։</b> A2111-0010 Size: 50 µg/28 µl	<b>Storage:</b> Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.
Concentration: 1.80 µg/µl	<b>Precautions:</b> This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Description: Polyclonal antibody raised in rabbit against 3-methylcytosine (3-mC) conjugated to BSA.

### Applications

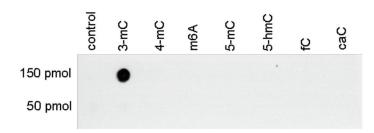
	Suggested dilution	Results
Dot Blot	1:400	Fig 1

\*The optimal dilution for other applications should be determined by the end user. For WB we suggest starting with a 1:500 dilution

## Target description

3-methylcytosine arises by erroneous methylation of DNA through spontaneous exposure to endogenous S-adenosyl methionine (SAM). Since the N3-position in cytosine is protected in double stranded DNA, this phenomenon mainly occurs in single stranded DNA. The resulting 3-mC is toxic and mutagenic and increased levels of 3-mC seem to impair cell proliferation. Therefore, it has to be repaired by the cell. This is established by oxidative demethylation, which is catalyzed by the AlkB protein.

Results



# Figure 1. Dot blot analysis using the Diagenode antibody directed against 3-mC

To demonstrate the specificity of the Diagenode antibody against 3-mC (cat. No. C15410209), a Dot Blot analysis was performed using synthetic oligonucleotides containing different modified bases. 150 and 50 pmol of the respective oligo's were spotted on the membrane. The antibody was diluted 1:400 in PBS-T containing 10 % skimmed milk and 1% BSA. Figure 1 shows a high specificity of the antibody for the oligonucleotide with the 3-methylcytosine modification.

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