



6042 Cornerstone Court W, Ste B  
San Diego, CA 92121  
Tel: 1.858.202.1401  
Fax: 1.858.481.8694  
Email: [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

## Data Sheet

### Anti-3-mC polyclonal antibody Catalog #: 25200

<b>Lot #:</b> 150728	<b>Host Species:</b> Rabbit
<b>Conc.:</b> 50 µg/28 µl	<b>Species Reactivity:</b> Human, Mouse, broad range
<b>Size:</b> 50 µg	<b>Immunogen:</b> Synthetic peptide
<b>Clonality:</b> Polyclonal	<b>Purification:</b> Protein G purified

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

**Background:** 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.

**Formulation:** PBS containing 0.05% azide and 0.05% ProClin 300.

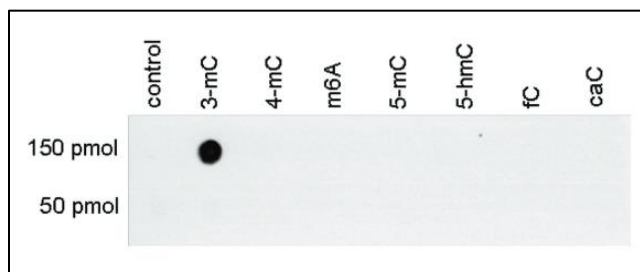
**Applications:** DB (1:400)

**Storage/Stability:** Store at -80°C for up to 2 years. Centrifuge after first thaw to maximize product recovery. Aliquot to avoid repeated freeze/thaw cycles. Aliquots may be stored at -20°C for at least one month..

**Warnings:** Avoid freeze/thaw cycles

**Notes:** The optimal antibody concentration should be determined by the end-user.

### Quality Assurance:



Dot blot analysis using the antibody directed against 3-mC. To demonstrate the specificity of the antibody against 3-mC (cat. No. 25200), 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.