

PRODUCT NAME		
Human MYT 1 promoter Primer Pairs		
Official symbol: PKMYT1		
Official full name: Protein kinase, membrane associated tyrosine/threonine 1		
Other name: MYT 1, FLJ20093		
Primary source: HGNC: 29650		
Cat. No: <b>pp-1037-050</b>	Size: 50 µl	Concentration: 10 µM
Cat. No: <b>pp-1037-500</b>	Size: 500 µl	Concentration: 10 µM

10 sets of our primer pairs: 50 µl (see our list)  
500 µl

**Description:** The primer pair Cat. No. pp-1037 [-050, -500] is specific to a DNA region in the human MYT 1 gene promoter [1]. These primers can be used to amplify DNA isolated by chromatin immunoprecipitation (ChIP). Primers are optimized to be used in polymerase chain reaction (PCR) (**Figures 1**). See overview below.

**Expected PCR product size:** 350 base pairs (bp).

**Specificity:** Human: positive  
Other species: not tested

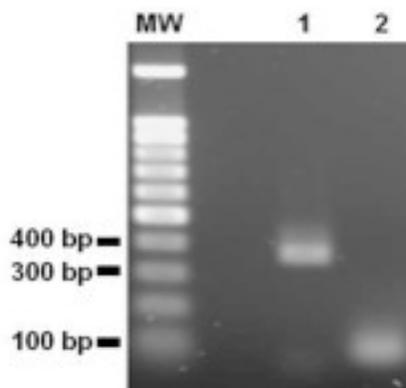
**Format:** In solution in MiliQ water at the concentration of 10 µM (each oligonucleotide primer is at the final concentration of 5 µM).

**Storage:** For long storage, store at -20°C. Avoid multiple freeze-thaw cycles.

**Precautions:** This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**References:**

- [1] Vire E., Brenner C., Deplus R., Blanchon L., Fraga M., Didelot C., Morey L., Van Eynde A., Bernard D., Vanderwinden J.M., Bollen M., Esteller M., Di Croce L., de Launoit Y. and Fuks F. (2006) Nature 439 (7078): 871-4.
- [2] Wells N.J., Watanabe N., Tokusumi T., Jiang W., Verdecia M.A. and Hunter T. (1999) J. Cell Sci. 112: 3361-71.
- [3] Inoue D. and Sagata N. (2005) EMBO J. 24 (5): 1057-67.



**Figure 1**

PCR products were analysed by electrophoresis in 1.5% agarose gel stained with SYBR Safe and illuminated with UV light. The left lane shows molecular weight markers (MW) that decrease in size by 100 bp. Different PCR products using different primer pairs which are available at Diagenode were tested: 1: primers for human MYT 1 gene promoter (Cat. No. pp-1037-050, -500), 2: primers for human BMX gene (Cat. No. pp-1039-050, -500). For more details about other primer pairs, see data sheet.

**Overview:** The protein encoded by this gene is a member of the serine/threonine protein kinase family. This kinase preferentially phosphorylates and inactivates cell division cycle 2 protein (CDC2), and thus negatively regulates cell cycle G2/M transition. This kinase is associated with the membrane throughout the cell cycle. Its activity is highly regulated during the cell cycle [2]. Protein kinases AKT1/PKB and PLK (Polo-like kinase) have been shown to phosphorylate and regulate the activity of this kinase. Alternatively spliced transcript variants encoding distinct isoforms have been reported [3].