

Letter to Editor

The Primer Specificity is Critical to Getting Right Results in Real Time PCR

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Dear Editor in chief

With the advancement of technology, multiple molecular methods such as Real-time PCR have been made available. Evaluation of gene expression to introduce specific disease biomarkers is one of Real-time PCR possibilities. The primer specificity is critical to getting right results. An article entitled "Over-Expression of BIM Gene in Multiple Sclerosis Patients Using Real-time PCR" was published in 2018 (1). (Table 1)

As shown in the Figure 1, the primer Blast analysis in the NCBI database shows that the primer belongs to another gene called *SEPTIN 14*. *SEPTIN 14* gene is a member of Septin family of GTP-binding cytoskeletal proteins located in 7p11.2 gene locus (2) while *BIM* gene is a member of Bcl-2 family and located in the locus of 2q13 (3). Therefore, it is recommended that caution be taken when choosing the sequence of primers in future studies.

Table 1. The primer sequences used in the study of Goodarzi et al. (1).

	Sequences (5'-3')	Length	Tm
Forward	ACAAAGAAGCATATCTCGGA	20	54.17
Reverse	ACAGATGAAGTGAAAGTTGG	20	53.43

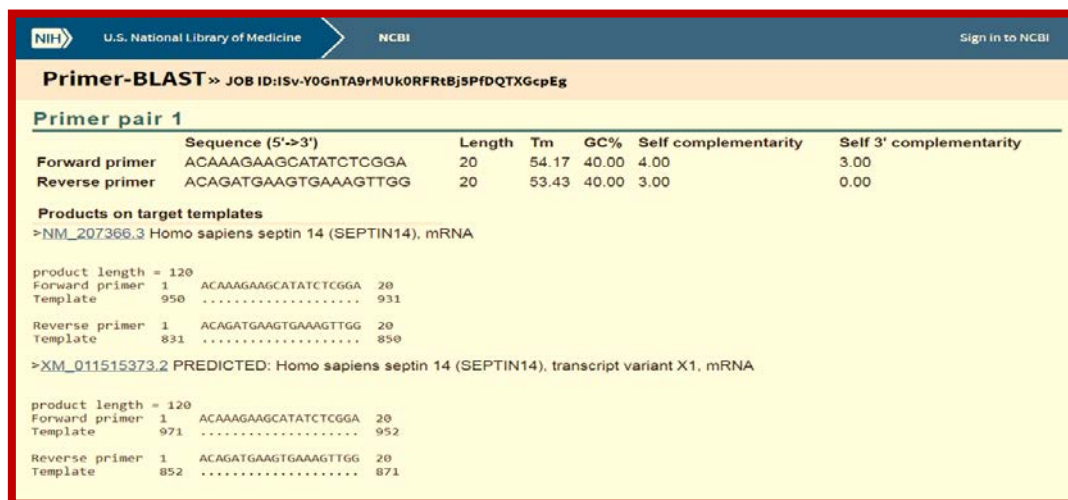


Figure1. The Primer Blast analysis in the NCBI database

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Reference

1. Goodarzi N, Onsory KH, Bakhshi-Khaniki GH. Over Expression of BIM Gene in Multiple Sclerosis Patients Using Real Time PCR. JFUMS. 2018;7(4):557-64.
2. Peterson E, Kalikin L, Steels J, Estey M, Trimble W, Petty E. Characterization of a SEPT9 interacting protein, SEPT14, a novel testis-specific Septin. Mamm Genome. 2007;18(11):796-807.
3. Sionov R, Vlahopoulos S, Granot Z. Regulation of Bim in Health and Disease. Oncotarget. 2015 Sep 15;6(27):23058-134.