

Product datasheet for **RN204561**

Batf (NM_001106748) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Batf (NM_001106748) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Batf
Synonyms:	B-ATF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN204561 representing NM_001106748 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCTCACAGCTCCGACAGCAGCGACTCCAGCTTCAGCCGCTCTCTCCCCGGCAAGCAGGACTCAT
CCGATGATGTGAGGAAAGTTCAGAGGAGAGAGAAGAACCATTGCTGCCAGAAGAGCCGACAGAGACA
GACACAGAAGGCCGACACCCTTCACCTGGAGAGCGAGGACCTGGAGAAACAGAATGCGGCTCTTCGAAAA
GAGATCAAACAGCTCACAGAGGAGCTAAAGTACTTCACATCGGTGCTGAGCAGCCAGAGCCCCTGTGCT
CCGTGCTAGCCAGTGGCACCCCCTCGCCCCCGAGGTGGTATACAGCGCCCATGCCTTCCACCAGCCTCA
CATCAGCTCACACGCTTCCAGCC**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-Mlul
ACCN:	NM_001106748
Insert Size:	378 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_001106748.1</u> , <u>NP_001100218.1</u>
RefSeq Size:	969 bp
RefSeq ORF:	378 bp
Locus ID:	299206
UniProt ID:	<u>D4A7E1</u>
Cytogenetics:	6q31
Gene Summary:	AP-1 family transcription factor that controls the differentiation of lineage-specific cells in the immune system: specifically mediates the differentiation of T-helper 17 cells (Th17), follicular T-helper cells (TfH), CD8(+) dendritic cells and class-switch recombination (CSR) in B-cells. Acts via the formation of a heterodimer with JUNB that recognizes and binds DNA sequence 5'-TGA[CG]TCA-3'. The BATF-JUNB heterodimer also forms a complex with IRF4 (or IRF8) in immune cells, leading to recognition of AICE sequence (5'-TGAnTCA/GAAA-3'), an immune-specific regulatory element, followed by cooperative binding of BATF and IRF4 (or IRF8) and activation of genes. Controls differentiation of T-helper cells producing interleukin-17 (Th17 cells) by binding to Th17-associated gene promoters: regulates expression of the transcription factor RORC itself and RORC target genes such as IL17 (IL17A or IL17B). Also involved in differentiation of follicular T-helper cells (TfH) by directing expression of BCL6 and MAF. In B-cells, involved in class-switch recombination (CSR) by controlling the expression of both AICDA and of germline transcripts of the intervening heavy-chain region and constant heavy-chain region (I(H)-C(H)). Following infection, can participate in CD8(+) dendritic cell differentiation via interaction with IRF4 and IRF8 to mediate cooperative gene activation. Regulates effector CD8(+) T-cell differentiation by regulating expression of SIRT1. Following DNA damage, part of a differentiation checkpoint that limits self-renewal of hematopoietic stem cells (HSCs): up-regulated by STAT3, leading to differentiation of HSCs, thereby restricting self-renewal of HSCs (By similarity).[UniProtKB/Swiss-Prot Function]