| Revision 1   |   |          |
|--|---|----------|
| Human BAFF/TNFSF13B (hBAFF)                                  | Cell Signal                                   | G Y®     |
| Store  | Orders: 877-616-CELL<br>orders@cellsign       |          |
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| <b>MW (kDa):</b><br>16 | UniProt ID:<br>#Q9Y275 | Entrez-Gene Id:<br>10673  |  |
|------------------------|------------------------|---|--|
| Background             |                        | BAFF, a member of the TNF superfamily of proteins, is a homotrimeric transmembrane protein, w<br>is cleaved to produce a soluble cytokine (1). BAFF may also further oligomerize into 60-mer struct<br>(1). BAFF is expressed by neutrophils, macrophages, dendritic cells, activated T cells, and epithelia<br>(1,2). BAFF plays a key role in B cell development, survival, and activation (1,3,4). BAFF binds to the<br>distinct receptors, BAFF-R, TACI, and BCMA (1). These receptors are differentially expressed during<br>cell development and among B cell subsets (1,2,4). While BAFF-R and BCMA bind to the homotrim<br>form of BAFF, TACI only binds to membrane bound or higher order BAFF structures (1). The BAFF/<br>R interaction activates both canonical and non-canonical NF-kB pathways, PI3K/Akt, and mTOR (2<br>Activation of the noncanonical NF-kB pathway via BAFF-R is negatively regulated by TRAF3 (5). Ele<br>levels of BAFF may exacerbate many autoimmune disorders, making it an attractive therapeutic t<br>(2).  | tures<br>al cells<br>ree<br>g B<br>neric<br>/ BAFF-<br>2,4).<br>evated                       |
| Endotoxin              |                        | Less than 0.01 ng endotoxin/1 µg hBAFF.   |  |
| Purity                 |                        | >98% as determined by SDS-PAGE of 6 μg reduced (+) and non-reduced (-) recombinant hBAFF. Al<br>are greater than 98% pure.  | llots  |
| Source / Purific       | ation                  | Recombinant human BAFF (hBAFF) Ala134-Leu285 (Accession #NP_006564) was expressed in hun 293 cells at Cell Signaling Technology.  | nan  |
| Bioactivity            |                        | The bioactivity of recombinant hBAFF was determined in a cell proliferation assay using mouse sp<br>B cells. The ED <sub>50</sub> of each lot is between 0.5-2 ng/ml.   | plenic   |
| Background Re          | ferences               | 1. Mackay, F. and Schneider, P. (2009) <i>Nat Rev Immunol</i> 9, 491-502.<br>2. Moisini, I. and Davidson, A. (2009) <i>Clin Exp Immunol</i> 158, 155-63.<br>3. Schiemann, B. et al. (2001) <i>Science</i> 293, 2111-4.<br>4. Khan, W.N. (2009) <i>J Immunol</i> 183, 3561-7.<br>5. Gardam, S. et al. (2008) <i>Immunity</i> 28, 391-401.  |  |
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