

## Product Datasheet

### Recombinant IL-4, Porcine (orb1494703)

<b>Catalog Number</b>	orb1494703
<b>Category</b>	Proteins
<b>Description</b>	<p>Interleukin-4 (IL-4) is a pleiotropic cytokine regulates diverse T and B cell responses including cell proliferation, survival, and gene expression. It has important effects on the growth and differentiation of different immunologically competent cells. Interleukin-4 is produced by mast cells, T cells, and bone marrow stromal cells [1]. IL-4 regulates the differentiation of native CD4+ T cells (Th0 cells) into helper Th2 cells, and regulates the immunoglobulin class switching to the IgG1 and IgE isotypes. IL-4 has numerous important biological functions including stimulating B-cells activation, T-cell proliferation and CD4+ T-cells differentiation to Th2 cells. It is a key regulator in hormone control and adaptive immunity [2]. IL-4 also plays a major role in inflammation response and wound repair via activation of macrophage into M2 cells [3]. IL-4 is stabilized by three disulphide bonds forming a compact globular protein structure [4]. Four alpha-helix bundle with left-handed twist is dominated half of the protein structure with 2 overhand connections and fall into a 2-stranded anti-parallel beta sheet [5].</p>
<b>Form/Appearance</b>	Lyophilized after extensive dialysis against PBS.
<b>Buffer/Preservatives</b>	Lyophilized after extensive dialysis against PBS.
<b>Purity</b>	> 95% as analyzed by SDS-PAGE and HPLC.
<b>Purification</b>	> 95% as analyzed by SDS-PAGE and HPLC.
<b>Protein Sequence</b>	HKCDITLQEIIKTLNILTARKNSCMELPVTVDVFAAPENTTEKETFCRASTVLRHIYRHHTCMKSLLSGLDRNLSSMANMTCSVHEAKKSTLKDFLERLKTIMKEKYSKC
<b>MW</b>	15kDa, observed by reducing SDS-PAGE
<b>Application notes</b>	Reconstituted in ddH2O or PBS at 100 µg/ml.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

<b>Endotoxins</b>	0.2 EU/ $\mu$ g, determined by LAL method.
<b>Source</b>	CHO
<b>Biological Activity</b>	ED504 x 10 <sup>6</sup> units/mg
<b>Storage</b>	Lyophilized recombinant porcine Interleukin 4 (IL-4) remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, rpIL-4 should be stable up to 1 week at 4°C or up to 2 months at -20°C.
<b>Note</b>	For research use only

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7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

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NC 27713  
United States

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Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)