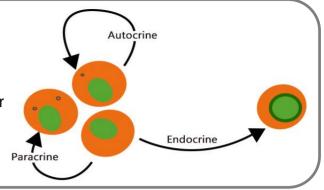
# **Cytokines**

◆ Cytokines are small proteins secreted by the cells from the immune system which enable intercellular communication between immune cells during an immune response. While proinflammatory cytokines alert our immune system of a potential infection, a dysregulated cytokine production system can lead or play a critical role in a range of diseases including cancer, arthritis, acute respiratory distress syndrome (ARDS) and infectious diseases.



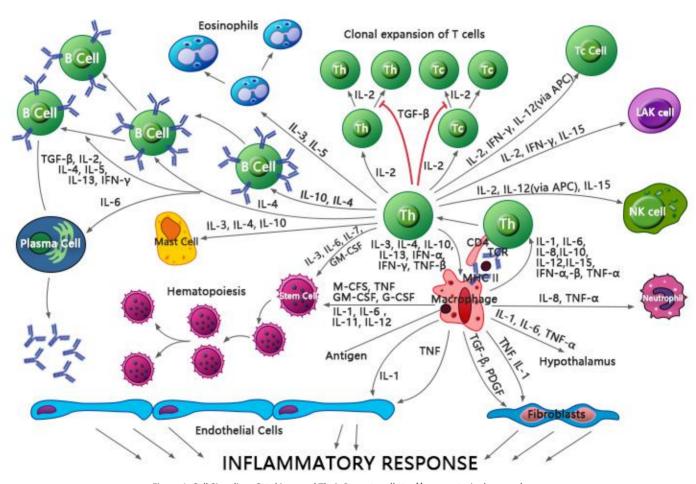


Figure 1. Cell Signaling: Cytokines and Their Receptors (http://www.veteriankey.com)



## **Cytokine Products**

#### **Featured Proteins**

### Human FGF Basic (cat# TP750002)

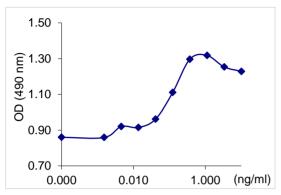


Figure 2. The activity of bFGF was determined in a cell proliferation assay using *3T3 cells*.

## Human TNF-alpha (cat# TP750007)

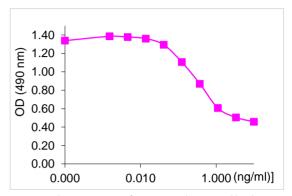


Figure 3. The cytotoxicity of TNF-a was determined by the cytolysis of *L929 cells* in the presence of Actinomycin D.

#### **OriGene Provides Whole-Product Solutions to Common Cytokines**

Cytokine Name	cDNA Clones	RNAi	Protein	Antibody	ELISA Kit	CRISPR Knockout Kit
bFGF / FGF2	<b>✓</b>	<b>✓</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
VEGFA	<b>&gt;</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
LIF	<b>&gt;</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
BMP2	<b>&gt;</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
TNFa	<b>✓</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
IL6	<b>✓</b>	<b>√</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
GDF11	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>		<b>V</b>
RSPO1	<b>✓</b>	<b>√</b>	<b>V</b>	<b>V</b>		<b>V</b>
CD34	<b>&gt;</b>	<b>V</b>	<b>V</b>	<b>V</b>		<b>V</b>
EBI3	<b>✓</b>	<b>V</b>	<b>V</b>	<b>V</b>		<b>V</b>
Msln	<b>&gt;</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
FGF19	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
IL2	<b>✓</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
IFNA2	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>		<b>V</b>
EGFR	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>

For more information, please visit www.origene.com

