



Sanquin

# PeliSPOTä human IL-4

## Specification sheet

|                                   |  |
|-----------------------------------|--|
| <b>Order number</b>               | M2514 kit and M9414 pair   |
| <b>Specificity</b>                | The monoclonal antibodies in this kit/ pair recognize native and recombinant human IL-4  |
| <b>Intended use</b>               | For research use only  |
| <b>Application</b>                | <p>Interleukin 4 (IL-4, B-cell growth factor-1, BSF-1) is a T-cell derived cytokine with a molecular weight of approximately 15 to 19 kD. It plays an important role in the activation of resting B-cells and the subsequent proliferation and differentiation of B-cells.</p> <p>IL-4 is essential for IgE synthesis in vitro and its involvement in allergic diseases has been demonstrated. Furthermore, IL-4 was found to inhibit the secretion of IL-1<math>\beta</math>, TNF-<math>\alpha</math> and IL-6 of human monocytes, to down-regulate the surface expression of CD5 on B-cells and to promote the growth of human T-cells. Also anti-inflammatory effects of IL-4 have been reported. Several studies have been conducted to assess the role of IL-4 in several autoimmune diseases.</p> <p>This PeliSPOT™ human IL-4 kit has been developed for reproducible and specific enumeration of human IL-4 secreting cells.</p> |
| <b>Assay procedure</b>            | See PeliSPOT™ Assay Procedure (kit) or PeliSPOT Pair product information   |
| <b>Storage and stability</b>      | As indicated on the box label  |
| <b>Cell incubation</b>            | Optimal conditions should be determined by the researcher. A typical incubation period for antigen specific stimulation is 44 hours.<br>For a stronger stimulation (e.g. pma/iono) 20 hours stimulation is sufficient.   |
| <b>Positive assay control</b>     | Dilute 1:100 in cell culture medium (kit only)   |
| <b>Positive secretion control</b> | Polyclonal cell activation with PMA and Ionomycin is recommended. Concentrations are indicated in the PeliSPOT™ assay protocol.  |
| <b>Spot counting</b>              | Enumeration of spots is preferably done with the A.EL.VIS spot analysers, Eli.Scan or Eli.Expert.  |

Recommended parameter settings for software version V3.3 and up:

|                |   |      |             |   |       |
|----------------|---|------|-------------|---|-------|
| ROI            | = | 70 % | Invert      | = | off   |
| Brightness     | = | 65 % | Slope       | = | X Low |
| MinSize        | = | 5    | Development | = | N     |
| MaxSize        | = | 500  | Separation  | = | 20    |
| Minintensity   | = | 10   | Pollution   | = | On    |
| MinCircularity | = | 100  | Overdevelop | = | On    |

Typical results after  
20 hours incubation



100,000 PBMC per well non- stimulated    25,000 PBMC per well, pma/iono stimulated