**CD4 Monoclonal Antibody (N1UG0), eBioscience™**

**Catalog Number**: 14-2444-80

<table>
<thead>
<tr>
<th>Details</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td>25 µg</td>
</tr>
<tr>
<td><strong>Host/Isotope</strong></td>
<td>Mouse / IgG2b, kappa</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Antibody</td>
</tr>
<tr>
<td><strong>Clone</strong></td>
<td>N1UG0</td>
</tr>
<tr>
<td><strong>Conjugate</strong></td>
<td>Unconjugated</td>
</tr>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td>0.5 mg/mL</td>
</tr>
<tr>
<td><strong>Purification</strong></td>
<td>Affinity chromatography</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>PBS, pH 7.2</td>
</tr>
<tr>
<td><strong>Contains</strong></td>
<td>0.09% sodium azide</td>
</tr>
<tr>
<td><strong>Storage Conditions</strong></td>
<td>4° C</td>
</tr>
</tbody>
</table>

**Species Reactivity**
- **Tested species reactivity**: Human
- **Published species reactivity**: Not Applicable

**Tested Applications**
- **Immunohistochemistry (Paraffin) (IHC (P))**: 2.5 µg/ml
- **Western Blot (WB)**: 5 µg/ml

**Published Applications**
- **Miscellaneous PubMed (MISC)**: See 3 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

---

**Description**

The N1UG0 monoclonal antibody reacts with human CD4, a 59 kDa cell surface glycoprotein expressed by the majority of thymocytes, a subpopulation of mature T cells (T-helper cells) and in low levels on monocytes. CD4 is a receptor for the human immunodeficiency virus (HIV). The N1UG0 antibody is recommended for use in staining human formalin-fixed paraffin embedded tissue sections.

**Applications Reported**

This N1UG0 antibody has been reported for use in western blotting and immunohistochemical staining of formalin-fixed paraffin embedded tissue sections.

**Applications Tested**

This N1UG0 antibody has been tested by immunohistochemistry of formalin-fixed paraffin embedded human tissue using low or high pH antigen retrieval at less than or equal to 2.5 µg/mL. This N1UG0 antibody has been tested by western blot on reduced PBMC and can be used at less than or equal to 5.0 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Purity**

Greater than 90%, as determined by SDS-PAGE.

**Aggregation**

Less than 10%, as determined by HPLC.

**Filtration**

0.2 µm post-manufacturing filtered.

**Background/Target Information**

The CD4 antigen is involved in the recognition of MHC class II molecules and is a co-receptor for HIV. CD4 is primarily expressed in a subset of T-lymphocytes, also referred to as T helper cells, but may also be expressed by other cells in the immune system, such as monocytes, macrophages, and dendritic cells. At the tissue level, CD4 expression may be detected in thymus, lymph nodes, tonsils, and spleen, and also in specific regions of the brain, gut, and other non-lymphoid tissues. CD4 functions to initiate or augment the early phase of T-cell activation through its association with the T-cell receptor complex and protein tyrosine kinase, Lck. It may also function as an important mediator of direct neuronal damage in infectious and immune-mediated diseases of the central nervous system. Multiple alternatively spliced transcripts have been identified in this gene [RefSeq, July 2017].

Immunohistochemistry of formalin-fixed paraffin embedded human pancreas using 5 µg/mL Anti-Insulin Alexa Fluor® 488 (green), 5 µg/mL Anti-Somatostatin eFluor® 660 (white), and 2.5 µg/mL Anti-Glucagon Biotin followed by 1 µg/mL Streptavidin eFluor® 570 (red). Nuclei are stained with DAPI (blue).
### 3 Miscellaneous PubMed References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
</table>
| Not Applicable / Not Cited | "Immunofluorescence-detected infiltration of CD4+FOXP3+ regulatory T cells is relevant to the prognosis of patients with endometrial cancer."  
PubMed Article URL: [http://dx.doi.org/10.1097/IGC.0b013e31822c271f](http://dx.doi.org/10.1097/IGC.0b013e31822c271f) |
| Not Applicable / Not Cited | "Inhibition of gp160 and CD4 maturation in U937 cells after both defective and productive infections by human immunodeficiency virus type 1."
Author(s): Bour S, Boulerice F, Wainberg MA  
PubMed Article URL: [null](null) |
| Not Applicable / Not Cited | "Separation of functional subsets of human T cells by a monoclonal antibody."  
Author(s): Reinherz EL, Kung PC, Goldstein G, Schlossman SF  
PubMed Article URL: [null](null) |