Datasheet: PBP015KZZ

**Product Details**

**Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

<table>
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<th>Functional Assays</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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Where this reagent has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the protein for use in their own system using appropriate negative/positive controls.

**Target Species**

Bovine

**Product Form**

Mixed recombinant bovine Interleukin-4 and bovine GM-CSF – supplied as a liquid

**Preparation**

Recombinant cytokines expressed in mammalian Chinese Hamster Ovary (CHO) cells using the pEE14® vector grown in antibiotic free media and USDA-approved dialysed FCS which has been screened for BVDV and virus growth by PCR.

**Preservative Stabilisers**

None present

**Endotoxin Level**

<0.5EU/mL

**Product Information**

Bovine dendritic cell growth kit contains a cocktail of biologically active interleukin-4 (IL-4) and granulocyte/macrophage-colony stimulating factor (GM-CSF) that have been premixed at optimal concentrations to induce dendritic cell development from peripheral blood-derived bovine (cattle) monocytes.

**References**


**Further Reading**

1. Prepare peripheral blood mononuclear cells (PBMC) from heparinised blood by density gradient centrifugation.

2. Purify CD14$^{+ve}$ cells by labelling PBMC with CD14 mAb and utilise magnetic bead or flow cytometric separation techniques.

3. Resuspend the isolated CD14$^{+ve}$ cells at a concentration of 1x10$^6$ cells/ml in tissue culture medium (TCM = RPMI or equivalent + 10% foetal calf serum) containing a final dilution of 1:20 of PBP015KZZ.

4. Add 3ml of cell suspension to each well of a 6 well tissue culture plate.

5. Culture cells in a humidified atmosphere of 5% CO$_2$ in air, at approximately 37$^\circ$C.

6. Culture cells for 3 days. The cells may then be harvested and used for other procedures including immunophenotyping (as required).

7. If a longer culture period is required the cells must be ‘fed’ with new TCM containing cytokines on day 3:
   Carefully remove 1ml spent medium from each well, care is required to avoid disturbing the cells.
   Add 1.5ml fresh, pre-warmed TCM containing cytokines at 1:20 to each well and re-culture the DC for required culture period (typically up to 7 days).

8. At the end of the culture period adherent and non-adherent cells can be pooled for use in immunoassays and phenotyped (as required). Adherent cells may require a dissociation step to remove them from the plate.

**Storage**

Store at -20$^\circ$C only.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature this recombinant protein. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life**

6 months from date of despatch.

**Acknowledgements**

This reagent was produced as part of the BBSRC/SEERAD Immunological Toolbox. The kit development was also supported by the European Community’s Seventh Framework Programme (FP7, 2007-2013), Research Infrastructures action, under the grant agreement No. FP7-228394 (NADIR)

**Health And Safety Information**

Material Safety Datasheet documentation #10286 available at:

**Regulatory**

For research purposes only

**Related Products**

**Recommended Useful Reagents**

- MOUSE ANTI BOVINE CD14:FITC (MCA2678F)
- MOUSE ANTI HUMAN CD14:Low Endotoxin (MCA1568EL)
- MOUSE ANTI HUMAN CD14:Alexa Fluor® 647 (MCA1568A647)