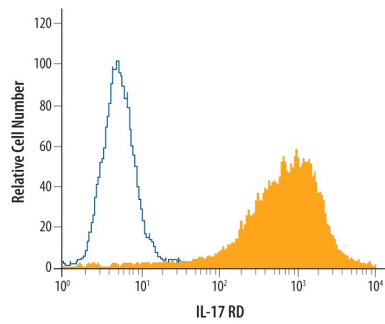
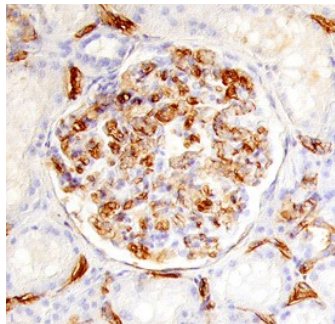


DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-17 RD/SEF in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant mouse (rm) IL-17 RD is observed and less than 10% cross-reactivity with recombinant human (rh) IL-17 RC, rmlIL-17B R, and rhIL-17 R is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-17 RD/SEF Ala27-Arg299 Accession # AAM77571
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human IL-17 RD/SEF (Catalog # 2275-IL)
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA	
<p><b>Flow Cytometry</b></p>  <p><b>Detection of IL-17 RD/SEF in K562 Human Cell Line by Flow Cytometry.</b> K562 human chronic myelogenous leukemia cell line was stained with Goat Anti-Human IL-17 RD/SEF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2275, filled histogram) or isotype control antibody (Catalog # AB-108-C, open histogram), followed by Phycoerythrin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0107).</p>	<p><b>Immunohistochemistry</b></p>  <p><b>IL-17 RD/SEF in Human Kidney.</b> IL-17 RD/SEF was detected in immersion fixed paraffin-embedded sections of human kidney using 15 µg/mL Goat Anti-Human IL-17 RD/SEF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2275) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to the cytoplasm of glomeruli and endothelial cells in capillaries in connective tissue. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>

PREPARATION AND STORAGE	
<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Interleukin-17 receptor D (IL-17 RD), also known as SEF (similar expression to FGFs), is a type I transmembrane protein that is found in both the cytoplasm and plasma membrane (1-5). The gene for this protein belongs to a synexpression group originally identified in zebrafish where SEF is expressed along with FGF-3, -8, sprouty-2 (SPRY2) and SPRY4 (6, 7). By alternate splicing, two transcript variants, potentially encoding three protein isoforms, exist. One is a full-length long form, one a shortened form that uses an alternate start site, and one an alternate splice form that removes the classic signal sequence (1-4). These isoforms have different expression patterns, subcellular localization, and function. The membrane-bound long form of human IL-17RD is synthesized as a 739 amino acid (aa) precursor protein with a putative 27 aa signal peptide, a 272 aa extracellular domain, a 20 aa transmembrane segment and a 420 aa cytoplasmic domain. The extracellular domain contains one Ig-like domain and a fibronectin type III motif. The cytoplasmic domain shares homology with the intracellular domains of IL-17 receptor family members and shows one TIR (Toll/IL-1 Receptor) domain and a putative TRAF6-binding motif (2). Natural IL-17 RD has been shown to form homomultimeric complexes (3). Unlike the alternate splice form of IL-17 RD that has a restricted pattern of expression, the full-length IL-17 RD isoform is expressed in most adult tissues and during embryonic development (3, 5). Functionally, IL-17 RD has been shown to be an inhibitor of FGF signaling. The molecule's extracellular domain does not seem to be involved. There is an interaction between the intracellular domains of FGFR1/2 and IL-17 RD that blocks ERK dissociation from MEK, thereby interfering with downstream ERK activation of nuclear Elk-1 (8). IL-17 RD has also been reported to interact with TAK1 and induce JNK activation and apoptosis (9). Ligands that interact with the extracellular domain of IL-17 RD have not been identified.

## References:

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