

# Soluble CD30, Fluorescent Immunoassay

## LUMINEX-BASED FLUORESCENT IMMUNOASSAY FOR SCD30 MEASUREMENTS IN BLOOD AND PLASMA

### Test Highlights

- Soluble CD30 (sCD30) is an indicator of an imbalance between Th1 and Th2 immune responses.
- The current method for quantitation of sCD30 is the enzyme-linked immunosorbent assay (ELISA), which has high sensitivity and specificity. However, sCD30 production varies greatly between patients, and the dynamic range of ELISAs requires that many samples be diluted and retested. Moreover, ELISA measures only one analyte per well, which precludes the testing of multiple analytes in the same test.
- sCD30 may represent a biomarker for outcome in solid-organ transplantation.

### Pathophysiology

- sCD30 was originally described as a marker for Reed-Sternberg cells in Hodgkin's disease.
- It is expressed on CD4+ and CD8+ T-cells that secrete Th-2 type cytokines.
- Signaling through CD30 plays an important role in T- and B-cell growth, differentiation, and function.
- Numerous studies have reported that circulating levels of sCD30 may represent a biomarker for outcome in solid-organ transplantation. In addition, other studies have reported that levels of sCD30 have important prognostic value in various lymphoproliferative disorders, systemic lupus erythematosus, and leishmaniasis.

### Indications for Ordering

Results are intended for research purposes or in attempts to understand the pathophysiology of immune and inflammatory disorders, as well as to monitor the immunological response in the setting of solid-organ transplantation.

### Additional Ordering Notes

- Submit 1 mL of frozen serum or plasma (min: 0.3 mL).
- Separate specimens must be submitted when multiple tests are ordered. Separate serum or plasma from cells immediately.

- Unacceptable conditions: hemolyzed, icteric, lipemic, or contaminated specimens.

### Methodology

Fluorescent microsphere immunoassay

### References

1. Del Prete G, et al. CD30-mediated signaling promotes the development of human T helper type 2-like T cells. *J Exp Med* 1995;182:1655-61.
2. Pelzl S, et al. Evaluation of posttransplantation soluble CD30 for diagnosis of acute renal allograft rejection. *Transplantation* 2003;75:421-3.
3. Susal C, et al. Identification of highly responsive kidney transplant recipients using pretransplant soluble CD30. *J Am Soc Nephrol* 2002;13:1650-6.
4. Ajdary S, et al. Soluble CD26/CD30 levels in visceral leishmaniasis: markers of disease activity. *Clin Exp Immunol* 2006;145:44-7.
5. Nishioka C, et al. Serum level of soluble CD30 correlates with the aggressiveness of adult T-cell leukemia/lymphoma. *Cancer Sci* 2005; 96:810-5.
6. Ciferska H, et al. The levels of sCD30 and of sCD40L in a group of patients with systemic lupus erythematosus and their diagnostic value. *Clin Rheumatol* 2007; 26:723-8.

## Test Information

2001573

Soluble CD30

For specific collection, transport, and testing information, refer to the ARUP Web site at [www.aruplab.com](http://www.aruplab.com).

For information on test selection, ordering, and interpretation, refer to ARUP Consult® at [www.arupconsult.com](http://www.arupconsult.com).