

# COVID-19 Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT)

## PF4 Antibody Detection for VITT

VITT is a rare clotting complication that may occur after receiving the adenovirus vector Johnson & Johnson or Oxford-AstraZeneca COVID-19 vaccines. VITT appears to present clinically and pathologically similarly to heparin-induced thrombocytopenia (HIT).

Vitalant Coagulation Laboratory offers a solid-phase ELISA assay that detects the presence of anti-platelet factor 4 (PF4) antibodies in patient plasma. The optical density (OD) is reported, which correlates well with the likelihood of VITT.

**Specimen Requirements:** One 3.5 mL blue top (3.2% sodium citrate) tube of whole blood, or a minimum of 1 mL platelet poor plasma. Separate plasma within one hour of collection and freeze at -20°C or less; ship on dry ice.

### Test Code:

550B – Heparin PF4 ELISA

**CPT Code:** 86022

### References:

Nazy et al. Recommendations for the clinical and laboratory diagnosis of vaccine-induced immune thrombotic thrombocytopenia (VITT) for SARS-



CoV-2 infections: Communication from the ISTH SSC Subcommittee on Platelet Immunology. J Thromb Haemost. 2021; <https://doi.org/10.1111/jth.15341>

Johnson & Johnson (Janssen) COVID-19 Vaccine. FDA website: <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/janssen-covid-19-vaccine> Accessed 20 May 2022.

Cases of Cerebral Venous Sinus Thrombosis with Thrombocytopenia after Receipt of the Johnson & Johnson COVID-19 Vaccine. CDC website: <https://emergency.cdc.gov/han/2021/han00442.asp>. Accessed 20 May 2022.

Inquiries can be made by calling 412-209-7270 or by contacting us on our website (<https://diagnostics.vitalant.org/Coagulation-Lab/Contact-Us.aspx>).