

Phase1 clinical development of TU7710, bypassing agent for hemophilia with prolonged half life.

TIUM BIO CO.,LTD.



OTHERS	Phase 1
Product Type	Biologics, Recombinant coagulation factor
Indication	Hemophilia A, Hemophilia B with inhibitor
Target	FVIIa, FIX, FX
MoA(Mechanism of Action)	TU7710 is a recombinant fusion protein comprising activated factor VII and transferrin. Due to half life extension moiety (transferrin), TU7710 shows prolonged half life than native factor VIIa. Factor VIIa bypasses the clotting pathway involving Factor VIII or Factor IX, activating the downstream pathway for hemostasis in individuals with hemophilia A or B who have neutralizing antibodies. In the case of bleeding, Factor VIIa binds directly to the activated platelets, converting Factor X to Factor Xa without the involvement of Factor VIII or Factor IX. Factor Xa then forms a prothrombinase complex with other clotting factors to produce sufficient thrombin for hemostasis.
Competitiveness	<ul style="list-style-type: none"> • Longer half life: Transferrin, which is linked to VIIa via peptide linker, prolongs the half life of TU7710 about 3 times. TU7710 exhibits similar activity as that of natural form of VIIa when cleaved by thrombin at linker site. • Safety: TU7710 is expected to have low immunogenic potential due to no sequence modifications in factor VII and transferrin genes.
Development Stage	Phase 1
Route of Administration	Intravenous