

**Supplementary material:**

**Table 1:** Types & numbers of PTM and functional classification of Rotavirus proteins

Protein	No & type of Phosphorylation sites	No & type of Glycosylation sites	No & type of SUMOylation sites	No. & type of Methylation sites	No. & type of Acetylation sites	Protein Functional Family (only P-value ≥ 80% are taken)
NSP1 (59 kDa)	Ser= 10, Thr=8 & Tyr= 8	N-linked= 4 O-linked= 1	Type I=0 TypeII=3		N6-acetyl lysine=1	Zinc-binding RNA-binding Metal binding Zinc-binding
NSP2 (35 kDa)	Ser= 7, Thr=2 & Tyr=3	N-linked= 1 O-linked= 0	Type I=1 TypeII=5	Assymmetric Dimethyl arginine=1		Zinc-binding
NSP3 (37 kDa)	Ser= 15, Thr=3 & Tyr= 5	N-linked= 0 O-linked= 0	Type I=1 TypeII=3	Assymmetric Dimethyl arginine=1		Zinc-binding
NSP4 (20 kDa)	Ser= 3, Thr= 5 & Tyr= 1	N-linked= 2 O-linked= 1	Type I=0 TypeII=1	Assymmetric Dimethyl arginine=1		Transmembrane
NSP5 (22 kDa)	Ser= 25, Thr=1 & Tyr= 5	N-linked= 1 O-linked=8	Type I=1 TypeII=4		N6-acetyl lysine=1	Coat protein
VP1 (125 kDa)	Ser= 33, Thr= 10 & Tyr= 21	N-linked= 5 O-linked=0	Type I=2 TypeII=1	Assymmetric Dimethyl arginine=2	N6-acetyl lysine=3	Transferase Structural protein DNA replication All DNA-binding RNA-binding
VP2 (102 kDa)	Ser= 12, Thr= 6 & Tyr= 8	N-linked= 3 O-linked=1	Type I=1 TypeII=12	Assymmetric Dimethyl arginine=4		Zinc-binding
VP3 (88 kDa)	Ser= 15, Thr=10 & Tyr= 21	N-linked= 9 O-linked=1	Type I=5 TypeII=5	Assymmetric Dimethyl arginine=2	N6-acetyl lysine=1	Zinc-binding
VP4 (87 kDa)	Ser= 34, Thr= 18 & Tyr= 12	N-linked= 12 O-linked=1	Type I=2 TypeII=1	Assymmetric Dimethyl arginine=1		Coat protein
VP6 (45 kDa)	Ser= 9, Thr= 6 & Tyr= 3	N-linked= 3 O-linked=1	Type I=0 TypeII=1	Assymmetric Dimethyl arginine=1		Coat protein
VP7 (34/38 kDa)	Ser= 7, Thr= 3 & Tyr= 3	N-linked= 1 O-linked= 0	Type I=0 TypeII= 2			Transmembrane Coat protein