| Leptoquark | Spin | F | $\mathrm{SU}(3)_C \otimes \mathrm{SU}(2)_L \otimes \mathrm{U}(1)_Y$ representation | $Q_{ m EM}$ | Coupling | | Decay mode |
|--------------|------|---|--|------------------------|--|----------------------|--|
| S_1 | 0 | 2 | (3,1,-2/3) | -1/3 | $\lambda_{L,R}(u,e_{L,R}),$ | $-\lambda_L(d, u_e)$ | $\mathrm{t} 	au^-,~\mathrm{b} u$ |
| $	ilde{S}_1$ | 0 | 2 | (3,1,-8/3) | -4/3 | $\lambda_R(d,e_R)$ | | $\mathrm{b}	au^-$ |
| S_2 | 0 | 0 | $(\overline{\bf 3}, {\bf 2}, -7/3)$ | $-2/3 \\ -5/3$ | $\lambda_L(u, u_e), \ \lambda_{L,R}(u,e_{L,R})$ | $\lambda_R(d,e_R)$ | $\frac{\bar{\mathrm{t}}\nu}{\bar{\mathrm{t}}\tau^-},\ \mathrm{b}\tau^+$ |
| $	ilde{S}_2$ | 0 | 0 | $(\overline{\bf 3},\!{f 2},\!-1/3)$ | $+1/3 \\ -2/3$ | $\lambda_L(d, u_e) \ \lambda_L(d,e_L)$ | | $ar{\mathrm{b}} u \ ar{\mathrm{b}}	au^-$ |
| S_3 | 0 | 2 | (3,3,-2/3) | $+2/3 \\ -1/3 \\ -4/3$ | $egin{aligned} \sqrt{2}\lambda_L(u, u_e) \ -\lambda_L(u,e_L), \ -\sqrt{2}\lambda_L(d,e_L) \end{aligned}$ | $-\lambda_L(d, u_e)$ | ${ m t} u \ { m t}	au^-, \ { m b} u \ { m b}	au^-$ |
| V_1 | 1 | 0 | $(\overline{\bf 3},\!{\bf 1},\!-4/3)$ | -2/3 | $\lambda_{L,R}(d,e_{L,R}),$ | $\lambda_L(u, u_e)$ | $\bar{\mathrm{b}} 	au^-, \ \bar{\mathrm{t}} u$ |
| $	ilde{V}_1$ | 1 | 0 | $(\overline{\bf 3},\!{\bf 1},\!-10/3)$ | -5/3 | $\lambda_R(u,e_R)$ | | $ar{\mathrm{t}}	au^-$ |
| V_2 | 1 | 2 | (3,2,-5/3) | $-1/3 \\ -4/3$ | $\lambda_L(d, u_e), \ \lambda_{L,R}(d,e_{L,R})$ | $\lambda_R(u,e_R)$ | $b\nu$, $t\tau^-$ $b\tau^-$ |
| $	ilde{V}_2$ | 1 | 2 | (3,2,+1/3) | $+2/3 \\ -1/3$ | $\lambda_L(u, u_e) \ \lambda_L(u,e_L)$ | | ${ m t} u \ { m t} 	au^-$ |
| V_3 | 1 | 0 | $(\overline{\bf 3}, {\bf 3}, -4/3)$ | +1/3 - 2/3 - 5/3 | $egin{aligned} \sqrt{2}\lambda_L(d, u_e) \ -\lambda_L(d,e_L), \ \sqrt{2}\lambda_L(u,e_L) \end{aligned}$ | $\lambda_L(u, u_e)$ | $egin{array}{l} ar{\mathrm{b}} u \ ar{\mathrm{b}}	au^-,\ ar{\mathrm{t}} u \ ar{\mathrm{t}}	au^- \end{array}$ |