The group G is isomorphic to the group labelled by $[32, 20]$ in the Small Groups library.

Ordinary character table of $G \cong Q32$:

	$1a$	$16a$	$2a$	$4a$	$8a$	$16b$	$4b$	$16c$	$8b$	$4c$	$16d$
χ_1	1	1	1	1	1	1	1	1	1	1	1
χ_2	1	-1	1	-1	1	-1	1	-1	1	-1	-1
χ_3	1	-1	1	1	1	-1	-1	-1	1	1	-1
χ_4	1	1	1	-1	1	1	-1	1	1	-1	1
χ_5	2	0	2	0	-2	0	0	0	-2	2	0
χ_6	2	$E(8) - E(8)^3$	2	0	0	$E(8) - E(8)^3$	0	$-E(8) + E(8)^3$	0	-2	$-E(8) + E(8)^3$
χ_7	2	$-E(8) + E(8)^3$	2	0	0	$E(8) + E(8)^3$	0	$E(8) - E(8)^3$	0	-2	$E(8) - E(8)^3$
χ_8	2	$E(16) - E(16)^7$	-2	0	$E(8) - E(8)^3$	$-E(16) + E(16)^7$	0	$E(16)^3 - E(16)^5$	$-E(8) + E(8)^3$	0	$-E(16)^3 + E(16)^5$
χ_9	2	$-E(16) + E(16)^7$	-2	0	$E(8) - E(8)^3$	$E(16) - E(16)^7$	0	$-E(16)^3 + E(16)^5$	$-E(8) + E(8)^3$	0	$E(16)^3 - E(16)^5$
χ_{10}	2	$E(16)^3 - E(16)^5$	-2	0	$-E(8) + E(8)^3$	$-E(16)^3 + E(16)^5$	0	$-E(16) + E(16)^7$	$E(8) - E(8)^3$	0	$E(16) - E(16)^7$
χ_{11}	2	$-E(16)^3 + E(16)^5$	-2	0	$-E(8) + E(8)^3$	$E(16)^3 - E(16)^5$	0	$E(16) - E(16)^7$	$E(8) - E(8)^3$	0	$-E(16) + E(16)^7$

Trivial source character table of $G \cong Q32$ at $p = 2$:

Normalisers N_i	N_1	N_2	N_3	N_4	N_5	N_6	N_7	N_8	N_9	N_{10}	N_{11}	N_{12}
p-subgroups of G up to conjugacy in G	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	P_{12}
Representatives $n_j \in N_i$	$1a$	$1a$	$1a$	$1a$	$1a$	$1a$	$1a$	$1a$	$1a$	$1a$	$1a$	$1a$
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 2 \cdot \chi_5 + 2 \cdot \chi_6 + 2 \cdot \chi_7 + 2 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 2 \cdot \chi_{11}$	32	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 2 \cdot \chi_5 + 2 \cdot \chi_6 + 2 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	16	16	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 2 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	8	8	8	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	8	8	0	2	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	8	8	0	0	2	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	4	4	4	0	0	4	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	4	4	4	2	0	0	2	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 2 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	4	4	4	0	2	0	0	2	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	4	4	4	0	2	0	2	0	2	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	2	2	2	2	0	2	2	0	2	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	2	2	2	0	2	2	0	2	0	0	2	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	1	1	1	1	1	1	1	1	1	1	1	1

$P_1 = Group([()]) \cong 1$

$P_2 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong C2$

$P_3 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong C4$

$P_4 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20)]) \cong C4$

$P_5 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31)]) \cong C4$

$P_6 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27)]) \cong C8$

$P_7 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20)]) \cong Q8$

$P_8 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31)]) \cong Q8$

$P_9 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20)]) \cong Q16$

$P_{10} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31)]) \cong Q16$

$P_{11} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,17,4,29,16,32,26,19,6,28,15,18,5,27,14,7)(2,24,8,12,22,23,30,3,10,11,21,25,9,31,20,13)]) \cong C16$

$P_{12} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20)]) \cong Q32$

$N_1 = Group([(1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong Q32$

$N_2 = Group([(1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong Q32$

$N_3 = Group([(1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20)]) \cong Q32$

$N_4 = Group([(1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong Q8$

$N_5 = Group([(1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong Q8$

$N_6 = Group([(1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31)]) \cong Q32$

$N_7 = Group([(1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27)]) \cong Q16$

$N_8 = Group([(1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32), (1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31)]) \cong Q16$

$N_9 = Group([(1,18,29)(8,27,32)(2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong Q16$

$N_{10} = Group([(1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong Q16$

$N_{11} = Group([(1,17,4,29,16,32,26,19,6,28,15,18,5,27,14,7)(2,24,8,12,22,23,30,3,10,11,21,25,9,31,20,13), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong Q32$

$N_{12} = Group([(1,2,6,10)(3,17,13,28)(4,20,15,30)(5,22,16,9)(7,24,19,11)(8,26,21,14)(12,32,25,27)(18,23,29,31), (1,3,6,13)(2,7,10,19)(4,23,15,31)(5,25,16,12)(8,27,21,32)(9,29,22,18)(11,26,24,14)(17,30,28,20), (1,4,16,26,6,15,5,14)(2,8,22,30,10,21,9,20)(3,11,25,31,13,24,12,23)(7,17,29,32,19,28,18,27), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong Q32$