OPCODE	Form	al	Stack	Mem	Gas
PUSH1				0	0
	$\boldsymbol{\mu_s'}[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$				
PUSH1				0	3
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc}+1)$	o 60			
MSTORE				0	6
	$\mu'_{\mathbf{m}}[\mu_{\mathbf{s}}[0]\dots(\mu_{\mathbf{s}}[0]+31)] \equiv \mu_{\mathbf{s}}[0]$	$u_{\mathbf{s}}[1]^{0} 40$ 1 60			
CALLER		2 00		96	18
	$m{\mu_s'}[0] \equiv I_s$				
PUSH1				96	20
	$\boldsymbol{\mu_s'}[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$	0	000000000000000000000000000000000000000	000f2	
PUSH1				96	23
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc}+1)$	0 02 1			
			000000000000000000000000000000000000000		
PUSH2	/fol	0 0x0 0		96	26
	$m{\mu}_{\mathbf{s}}'[0] \equiv m{c} ig((m{\mu}_{pc} + 1) \dots (m{\mu}_{pc} + 1) ig)$	1 02			
		2	000000000000000000000000000000000000000	000f2	

OPCODE	Forma	ıl	Stack	Mem	Gas
EXP				96	29
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]^{\boldsymbol{\mu}_{\mathbf{s}}[1]}$	0 0100			
		1 0x0			
		2 02			
		3		000000000	
		00000	000000000000000000000000000000000000000		
$\mathrm{DUP}2$				96	39
	${m \mu}_{f s}'[0] \equiv {m \mu}_{f s}[1]$	0 0x1			
		1 02			
		2 00000	000000000000000000000000000000000000000	0000000f2	
SLOAD				96	42
	$oldsymbol{\mu_{\mathbf{s}}'[0]} \equiv oldsymbol{\sigma}[I_a]_{\mathbf{s}}[oldsymbol{\mu_{\mathbf{s}}}[0]]$	0 02			
	$\mathbf{r}^{\mathbf{s}}\mathbf{s}[\circ] = \mathbf{r}^{\mathbf{s}}[\mathbf{r}^{\mathbf{s}}\mathbf{s}[\circ]]$	1 0x1			
		2 02			
		3			
			000000000000000000000000000000000000000	0000000f2	
DUP2				96	92
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[1]$	0 0x0			
	, 31 , 31 ,	1 0x1			
		2 02			
		3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	000000000	
		00000	000000000000000000000000000000000000000	0000000f2	

OPCODE	Forma	al	Stack	Mem	Gas
PUSH20				96	95
	${m \mu}_{f s}'[0] \equiv {m c} ig(({m \mu}_{pc} + 1) \dots ({m \mu}_{pc} +$	20)) 0 0x1			
		1 0x0			
		2 0x1			
		3 02			
		4 0000000	000000000000000000000000000000000000000	00000000f2	
MUL				96	98
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0] \times \boldsymbol{\mu}_{\mathbf{s}}[1]$	O fffffffff			
		1 0x1			
		2 0x0			
		3 0x1			
		4 02			
		5 0000000	000000000000000000000000000000000000000	00000000f2	
NOT				96	103
	$\forall i \in [0255]: \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \begin{cases} 1\\ 0 \end{cases}$	if $\mathbf{\hat{\mu}_s}[0]_i = 0$ otherwise $1 \ 0 \times 0$			
		2 0x1			
		3 02			
		4	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	222222222	
		0000000	000000000000000000000000000000000000000	0000000t2	

OPCODE	Formal	Stack	Mem	Gas
AND			96	106
	$\forall i \in [0255] : \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i \wedge$	$oldsymbol{\mu_{\mathbf{s}}^{0}}_{\mathbf{l}}]_{i}$ 0xfffffffffffffffffff00000000000000000	000000000000000000000000000000000000000	
		1 0x0		
		2 0x1		
		3 02		
		4 0000000000000000000000000000000000000	00000000f2	
SWAP1			96	109
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[1] \boldsymbol{\mu}_{\mathbf{s}}'[1] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]$	0 0x0		
		1 0x1		
		2 02		
		3 0000000000000000000000000000000000000	00000000f2	
DUP4			96	112
	${m \mu_s'}[0] \equiv {m \mu_s}[3]$	0 0x1		
		1 0x0		
		2 02		
		3 0000000000000000000000000000000000000	00000000f2	

OPCODE	Formal	Stack	Mem	Gas
PUSH20			96	115
1 022120	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{c} \big((\boldsymbol{\mu}_{pc} + 1) \dots (\boldsymbol{\mu}_{pc} + 2) \big)$	000000000000000000000000000000000000000		110
		1 0x1		
		2 0x0		
		3 02		
		4 0000000000000000000000000000000000000	000000f2	
AND			96	118
	$\forall i \in [0255] : \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i /$	$[oldsymbol{\mu_s^0}_1]_i$ finding and a finding a finding and a finding and a finding and a finding and a finding a finding and a finding and a finding a finding a finding a finding and a finding a findi		
		1 0000000000000000000000000000000000000	000000f2	
		2 0x1		
		3 0x0		
		4 02		
		5 0000000000000000000000000000000000000	000000f2	
MUL			96	121
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0] imes \boldsymbol{\mu}_{\mathbf{s}}[1]$	0 0xf2		
		1 0x1		
		2 0x0		
		3 02		
		4 0000000000000000000000000000000000000	000000f2	

OPCODE	Formal	Stack	Mem	Gas
OR	$\forall i \in [0255]: \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i \vee$	Q ₁ 0xf2	96	126
	$\forall i \in [0255]: oldsymbol{\mu_s}[0]_i = oldsymbol{\mu_s}[0]_i \lor$	$oldsymbol{\mu_{\mathbf{s}}}_{\mathbf{l}}$ $\mathbf{l}_{\mathbf{l}}$ \mathbf{l}_{0} \mathbf{n}_{0}		
		2 02		
		3 0000000000000000000000000000000000000	000f2	
SWAP1		0.0.60	96	129
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[1] \boldsymbol{\mu}_{\mathbf{s}}'[1] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]$	0 0xf21 02		
		2 000000000000000000000000000000000000	nnnf2	
SSTORE			96	132
	$m{\sigma}'[I_a]_{\mathbf{s}}[m{\mu}_{\mathbf{s}}[0]] \equiv m{\mu}_{\mathbf{s}}[1]$	0 02		
		1 0xf2		
		2 0000000000000000000000000000000000000	000f2	
POP			96	20132
	$oldsymbol{\mu_s}[0] = nil$	000000000000000000000000000000000000000	000f2	
CALLVALUE			96	20134
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv I_v$			
ISZERO			96	20136
	$\mu_{\mathbf{s}}'[0] \equiv \begin{cases} 1 & \text{if } \mu_{\mathbf{s}}[0] = 0 \\ 0 & \text{otherwise} \end{cases}$	0 0x0		

OPCODE	Forma	al	Stack	Mem	Gas
PUSH2				96	20139
	$oldsymbol{\mu_s'}[0] \equiv oldsymbol{c}ig((oldsymbol{\mu}_{pc}\!+\!1)\dots(oldsymbol{\mu}_{pc}\!+\!1)$	-2)) 0 0x1			
JUMPI				96	20142
	$J_{\scriptscriptstyle m JUMPI}(oldsymbol{\mu}) \equiv egin{cases} oldsymbol{\mu_{ m s}}[0] & ext{if} \ oldsymbol{\mu_{pc}} + 1 & ext{other} \end{cases}$	$m{\mu_s}[1] \stackrel{Q}{\neq} 050$ erwi s e 0x1			
JUMPDEST				96	20152
PUSH1				96	20153
	$\boldsymbol{\mu_s'}[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$				
DUP1				96	20156
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]$	0 01			
PUSH1				96	20159
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc}+1)$	o 01			
	v Bt 7	1 01			
PUSH1				96	20162
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$	0 0x0			
	-	1 01			
		2 01			

OPCODE	Formal		Stack	Mem	Gas
PUSH1				96	20165
1 00111	$\boldsymbol{\mu_s'}[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$	0 02			20100
	$oldsymbol{\mu_s}$ [0] $\equiv c(oldsymbol{\mu_{pc}}+1)$	1 0x0			
		2 01			
		3 01			
SWAP1				96	20168
	$oldsymbol{\mu}_{\mathbf{s}}'[0] \equiv oldsymbol{\mu}_{\mathbf{s}}[1] oldsymbol{\mu}_{\mathbf{s}}'[1] \equiv oldsymbol{\mu}_{\mathbf{s}}[0]$	0 0x0			
	$\mu_{\mathbf{S}}[\circ] = \mu_{\mathbf{S}}[\cdot]\mu_{\mathbf{S}}[\cdot] = \mu_{\mathbf{S}}[\circ]$	1 02			
		2 0x0			
		3 01			
		4 01			
SLOAD				96	20171
	$oldsymbol{\mu_s'}[0] \equiv oldsymbol{\sigma}[I_a]_{\mathbf{s}}[oldsymbol{\mu_s}[0]]$	0 02			
	Listil in [mlo[Listil]	1 0x0			
		2 0x0			
		3 01			
		4 01			
SWAP1				96	20221
	$\mu_{\mathbf{s}}'[0] \equiv \mu_{\mathbf{s}}[1]\mu_{\mathbf{s}}'[1] \equiv \mu_{\mathbf{s}}[0]$	0 0xf2			
		1 0x0			
		2 0x0			
		3 01			
		4 01			

OPCODE	Formal	Stack	Mem	Gas
PUSH2			96	20224
	$\dots (\boldsymbol{\mu}_{pc} + 2) $ 0 0x0			
$oldsymbol{\mu_{\mathbf{s}}}[\circ] = \mathcal{C}(\langle oldsymbol{\mu_{pc}} + 1 \rangle)$	$1 \ 0xf2$			
	2 0x0			
	3 01			
	4 01			
EXP			96	20227
$m{\mu_s'}[0] \equiv m{\mu_s}[0]$	$\mu_{\rm s}$ [1] 0 0100			
mst ^o l — mst ^o l	1 0x0			
	2 0xf2			
	3 0x0			
	4 01			
	5 01			
SWAP1			96	20237
$oldsymbol{\mu_{\mathbf{s}}'}[0] \equiv oldsymbol{\mu_{\mathbf{s}}}[1]oldsymbol{\mu_{\mathbf{s}}'}[1]$	$] = \mu_{-}[0]$ 0 0x1			
rs[√] - rs[-]rs[-	$1 = \boldsymbol{\mu}_{\mathbf{s}}[\circ]$			
	2 0x0			
	3 01			
	4 01			

OPCODE	Formal	Stack	Mem	Gas
DIV			96	20240
$\mu_{ m s}'$	$[0] \equiv \begin{cases} 0 & extif^{0} \overset{\text{opt}_{\mathbf{s}}[1]}{\mu_{\mathbf{s}}[1]} = 0 \\ \lfloor \boldsymbol{\mu}_{\mathbf{s}}[0] \div \boldsymbol{\mu}_{\mathbf{s}}[1] \rfloor & \text{otherwise} \end{cases}$)		
	2 0x0			
	3 01			
	4 01			
PUSH20			96	20245
$\mu_{ m s}'$	$[0] \equiv c ((\boldsymbol{\mu}_{pc} + 1) \dots (\boldsymbol{\mu}_{pc} + 20))^{0 \text{ Oxf2}}$			
	1 0x0			
	2 01			
	3 01			
AND			96	20248
orall i	$\in [0255]: \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i \wedge \boldsymbol{\mu}_{\mathbf{s}}^{0}[1]_i \text{fffffff}$			
	1 0xf2			
	2 0x0			
	3 01			
	4 01			
PUSH20			96	20251
μ_{s}'	$[0] \equiv \boldsymbol{c} ((\boldsymbol{\mu}_{pc} + 1) \dots (\boldsymbol{\mu}_{pc} + 20))^{\boldsymbol{0}} 0xf2$			
	1 0x0			
	2 01			
	3 01			

OPCODE	Formal	Stack	Mem	Gas
AND			96	20254
∀	$\forall i \in [0255] : \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i \wedge \boldsymbol{\mu}_{\mathbf{s}}[0]_i$	$oldsymbol{\mu_{\mathbf{s}}^{0}}{}_{[1]_i}$ and an antiferral and a second constant $oldsymbol{\mu_{\mathbf{s}}^{0}}{}_{[1]_i}$		
		1 0xf2		
		2 0x0		
		3 01		
		4 01		
PUSH20			96	20257
ļ	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{c} \big((\boldsymbol{\mu}_{pc} + 1) \dots (\boldsymbol{\mu}_{pc} + 20) \big)$) 0 0xf2		
		1 0x0		
		2 01		
		3 01		
AND			96	20260
\forall	$\forall i \in [0255] : \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i \wedge \boldsymbol{\mu}_{\mathbf{s}}[0]_i$	$oldsymbol{\mu_{\mathbf{s}}^{0}}[1]_i$ and the armodistration of the second		
		1 0xf2		
		2 0x0		
		3 01		
		4 01		
$\mathrm{DUP}2$			96	20263
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[1]$	0 0xf2		
		1 0x0		
		2 01		
		3 01		

OPCODE	Formal	l	Stack	Mem	Gas
MSTORE				96	20266
	$\mu'_{\mathbf{m}}[\mu_{\mathbf{s}}[0]\dots(\mu_{\mathbf{s}}[0]+31)] \equiv \mu$	[1] 0 0x0			20200
	$oldsymbol{\mu}_{\mathbf{m}}[oldsymbol{\mu}_{\mathbf{s}}[0] \ldots (oldsymbol{\mu}_{\mathbf{s}}[0] + S1)] \equiv oldsymbol{\mu}$	1 0xf2			
		2 0x0			
		3 01			
		4 01			
PUSH1				96	20269
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$	0 0x0			
	$\mu_{\mathbf{s}}[0] = 0(\mu_{pc} + 1)$	1 01			
		2 01			
ADD				96	20272
	$oldsymbol{\mu_s'}[0] \equiv oldsymbol{\mu_s}[0] + oldsymbol{\mu_s}[1]$	0 20			
		1 0x0			
		2 01			
		3 01			
SWAP1				96	20275
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[1] \boldsymbol{\mu}_{\mathbf{s}}'[1] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]$	0 0x20			
		1 01			
		2 01			
DUP2				96	20278
	$m{\mu}_{\mathbf{s}}'[0] \equiv m{\mu}_{\mathbf{s}}[1]$	0 01			
		1 0x20			
		2 01			

OPCODE	Forma	.1	Stack	Mem	Gas
MSTORE				96	20281
	$\mu'_{\mathbf{m}}[\mu_{\mathbf{s}}[0]\dots(\mu_{\mathbf{s}}[0]+31)] \equiv \mu$	u _a [1] 0 0x20			
	· mu st i (st i · /i ·	1 01			
		2 0x20			
		3 01			
PUSH1				96	20284
	$\boldsymbol{\mu_s'}[0] \equiv c(\boldsymbol{\mu_{pc}} + 1)$	0 0x20			
	v St. 1 · · · · pe · · /	1 01			
ADD				96	20287
	$oldsymbol{\mu}_{\mathbf{s}}'[0] \equiv oldsymbol{\mu}_{\mathbf{s}}[0] + oldsymbol{\mu}_{\mathbf{s}}[1]$	0 20			
		1 0x20			
		2 01			
PUSH1				96	20290
	$\boldsymbol{\mu_s}'[0] \equiv c(\boldsymbol{\mu_{pc}} + 1)$	0 0x40			
	•	1 01			
SHA3				96	20293
	$m{\mu}_{\mathbf{s}}'[0] \equiv \mathtt{Keccak}(m{\mu}_{\mathbf{m}}[m{\mu}_{\mathbf{s}}[0]\dots$	$\begin{matrix} (\boldsymbol{\mu_s}[0] \overset{0}{+} \boldsymbol{\mu_s}[1] - 1)] \\ 1 \ 0 \text{x} 40 \end{matrix}$	$(\boldsymbol{\mu}_i' \equiv M(\boldsymbol{\mu}_i, \boldsymbol{\mu}_{\mathbf{s}}[0], \boldsymbol{\mu}_{\mathbf{s}}[1])$		
		2 01			
PUSH1				96	20335
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc}+1)$	0 dffe0a64e	efc769aa3c2e3e99821e6c9a38	se82a0aa18f5ed48e1b6e9c118066b6	3
		1 01			

OPCODE	Forma	al	Stack	Mem	Gas
PUSH2				96	20338
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{c} \big((\boldsymbol{\mu}_{pc} + 1) \dots (\boldsymbol{\mu}_{pc} +$	(2)) 0 0x0			
•	$\mathbf{r}^{\mathbf{r}}\mathbf{s}[s] = \mathbf{r}(\mathbf{r}^{\mathbf{r}}pc + \mathbf{r}) \cdots (\mathbf{r}^{\mathbf{r}}pc + \mathbf{r})$	1			
		dffe0a64e	efc769aa3c2e3e99821e6c9a38	8e82a0aa18f5ed48e1b6e9c118066b6	
		2 01			
EXP				96	20341
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]^{\boldsymbol{\mu}_{\mathbf{s}}[1]}$	0 0100			
		1 0x0			
		2			
			efc769aa3c2e3e99821e6c9a38	8e82a0aa18f5ed48e1b6e9c118066b6	
		3 01			
DUP2				96	20351
	${m \mu}_{f s}'[0] \equiv {m \mu}_{f s}[1]$	0 0x1			
		195-0-64	-f-7602-9-2-00001-6-0-20	0-00-0-1067-140-11-0-0-1100661-6	
			eic709aa3c2e3e99821e0c9a38	Se82a0aa18f5ed48e1b6e9c118066b6	
		2 01			
SLOAD				96	20354
	$m{\mu}_{\mathbf{s}}'[0] \equiv m{\sigma}[I_a]_{\mathbf{s}}[m{\mu}_{\mathbf{s}}[0]]$	0 dffe0a64	efc769aa3c2e3e99821e6c9a38	8e82a0aa18f5ed48e1b6e9c118066b6	
		1 0x1			
		2 dffe0a64	efc769aa3c2e3e99821e6c9a38	8e82a0aa18f5ed48e1b6e9c118066b6	
		3 01			

OPCODE	Forma	.1	Stack	Mem	Gas
DUP2				96	20404
	$oldsymbol{\mu}_{\mathbf{s}}'[0] \equiv oldsymbol{\mu}_{\mathbf{s}}[1]$	0 0x0			
	r st-1 r st 1	1 0x1			
		2			
			64efc769aa3c2e3e99821e6c9a38	8e82a0aa18f5ed48e1b6e9c118066b6	
		3 01			
PUSH1				96	20407
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$	0 0x1			
		1 0x0			
		2 0x1			
		3 dffe 0 a	64efc769aa3c2e3e99821e6c9a38	Se82a0aa18f5ed48e1b6e9c118066b6	
		4 01			
MUL				96	20410
	$oldsymbol{\mu_s'}[0] \equiv oldsymbol{\mu_s}[0] imes oldsymbol{\mu_s}[1]$	0 ff			
		1 0x1			
		2 0x0			
		3 0x1			
		4 dffe0a	64efc769aa3c2e3e99821e6c9a38	8e82a0aa18f5ed48e1b6e9c118066b6	
		5 01			

OPCODE	Formal		Stack	Mem	Gas
NOT				96	20415
	(1 ::	0 0xff			
	$\forall i \in [0255]: \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv egin{cases} 1 & \text{if} \\ 0 & \text{or} \end{cases}$	$oldsymbol{\mu_{\mathbf{s}}}[0]_i \equiv 0$ therwise)			
	(2 0x1			
		3 dffe0a64efc	769aa3c2e3e99821e6c9a	38e82a0aa18f5ed48e1b6e9c118066b6	
		4 01			
AND				96	20418
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	0.,			20110
	$\forall i \in [0255]: \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i \wedge$	$oldsymbol{\mu_{\mathbf{s}}}[1]_i$ 0xffffffffff		fffffffffff00	
		1 0x0			
		2 0x1			
		3			
			769aa3c2e3e99821e6c9a	38e82a0aa18f5ed48e1b6e9c118066b6	
		4 01			
SWAP1				96	20421
	$\mu_{\mathbf{s}}'[0] \equiv \mu_{\mathbf{s}}[1]\mu_{\mathbf{s}}'[1] \equiv \mu_{\mathbf{s}}[0]$	0 0x0			
	$\mathbf{F}_{\mathbf{S}}[\circ] = \mathbf{F}_{\mathbf{S}}[-]\mathbf{F}_{\mathbf{S}}[-] = \mathbf{F}_{\mathbf{S}}[\circ]$	1 0x1			
		2			
		dffe0a64efc	769aa3c2e3e99821e6c9a	38e82a0aa18f5ed48e1b6e9c118066b6	
		3 01			

OPCODE	Formal		Stack	Mem	Gas
DUP4				96	20424
	$oldsymbol{\mu_s'}[0] \equiv oldsymbol{\mu_s}[3]$	0 0x1			
	$oldsymbol{\mu}_{\mathbf{S}}[0] = oldsymbol{\mu}_{\mathbf{S}}[0]$	1 0x0			
		2			
		dffe0	a64efc769aa3c2e3e99821e6c9a38	e82a0aa18f5ed48e1b6e9c118066b6	
		3 01			
ISZERO				96	20427
	$\mu_{\mathbf{s}}[0] = 0$	0 01			
	$m{\mu_s'}[0] \equiv egin{cases} 1 & ext{if} & m{\mu_s}[0] = 0 \ 0 & ext{otherwise} \end{cases}$	1 0x1			
		2 0x0			
		3			
		dffe0	a64efc769aa3c2e3e99821e6c9a38	e82a0aa18f5ed48e1b6e9c118066b6	
		4 01			
ISZERO				96	20430
	$\mu_{\mathbf{s}}[0] = \int 1 \text{if} \boldsymbol{\mu}_{\mathbf{s}}[0] = 0$	0 0x0			
	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv egin{cases} 1 & \text{if} & \boldsymbol{\mu}_{\mathbf{s}}[0] = 0 \\ 0 & \text{otherwise} \end{cases}$	1 0x1			
		2 0x0			
		3 dffe0	a64efc769aa3c2e3e99821e6c9a38	e82a0aa18f5ed48e1b6e9c118066b6	
		4 01			

Mem Gas	Stack	Formal	OPCODE
96 2043			MUL
		$oldsymbol{\mu_s'}[0] \equiv oldsymbol{\mu_s}[0] imes oldsymbol{\mu_s}[1]$	
		, st j , st j , st j	
82a0aa18f5ed48e1b6e9c118066b6	e0a64efc769aa3c2e3e99821e6c9a38e8		
96 20438			OR
		$\forall i \in [0255] : \boldsymbol{\mu}_{\mathbf{s}}'[0]_i \equiv \boldsymbol{\mu}_{\mathbf{s}}[0]_i \vee$	
82a0aa18f5ed48e1b6e9c118066b6	e0a64efc769aa3c2e3e99821e6c9a38e8		
96 2044:			SWAP1
		${m \mu}_{f s}'[0] \equiv {m \mu}_{f s}[1] {m \mu}_{f s}'[1] \equiv {m \mu}_{f s}[0]$	
82a0aa18f5ed48e1b6e9c118066b6	e0a64efc769aa3c2e3e99821e6c9a38e8	rsti rstirsti rsti	
96 2044			SSTORE
82a0aa18f5ed48e1b6e9c118066b6	e0a64efc769aa3c2e3e99821e6c9a38e8	$oldsymbol{\sigma}'[I_a]_{\mathbf{s}}[oldsymbol{\mu}_{\mathbf{s}}[0]] \equiv oldsymbol{\mu}_{\mathbf{s}}[1]$	

OPCODE	Formal		Stack	Mem	Gas
POP	$oldsymbol{\mu}_{\mathbf{s}}[0] = nil$	0 01		96	40444
PUSH2	$oldsymbol{\mu_s'}[0] \equiv oldsymbol{c}ig((oldsymbol{\mu}_{pc}\!+\!1)\dots(oldsymbol{\mu}_{pc}\!+\!2)$))		96	40446
DUP1	$oldsymbol{\mu_{\mathbf{s}}'}[0] \equiv oldsymbol{\mu_{\mathbf{s}}}[0]$	0 0403		96	40449
PUSH2	$oldsymbol{\mu_{ ext{s}}'}[0] \equiv oldsymbol{c}ig((oldsymbol{\mu}_{pc}\!+\!1)\dots(oldsymbol{\mu}_{pc}\!+\!2$)) 0 0403		96	40452
PUSH1	$m{\mu_s'}[0] \equiv c(m{\mu}_{pc} + 1)$	1 04030 00d8		96	40455
CODECOPY	rst i v pe v /	1 04032 0403		96	40458
CODECOFY	$\forall_{i\in\{0\boldsymbol{\mu_{s}}[2]-1\}}\boldsymbol{\mu_{m}'}[\boldsymbol{\mu_{s}}[0]\!+\!i] \equiv$	$\begin{cases} \mathbf{f_b}[0\mathbf{x}0]\\ \mathbf{f_b}[\mathbf{\mu_s}[1]+i] \end{cases}$ SIT OPd8	if $\mu_{\mathbf{s}}[1] + i < \ I_{\mathbf{b}}\ $ otherwise	90	40498
		2 04033 0403			
PUSH1	$\boldsymbol{\mu}_{\mathbf{s}}'[0] \equiv c(\boldsymbol{\mu}_{pc} + 1)$	0 0403		1056	40652

OPCODE	Formal	Stack	Mem	Gas
RETURN			1056	40655
	$H_{\text{RETURN}}(\boldsymbol{\mu}) \equiv \boldsymbol{\mu}_{\mathbf{m}}[\boldsymbol{\mu}_{\mathbf{s}}[0] \dots (\boldsymbol{\mu}_{\mathbf{s}}[0] + \boldsymbol{\mu}_{\mathbf{s}}^{0}[1] \\ 1 0403$	-1)]		