|  |  |  |
| --- | --- | --- |
| **Variable** | **Ordinary differential equation** | **Eq.** |
| BDNF |  | 1 |
| CREB |  | 2  3 |
| C/EBP |  | 4  5 |
| *bdnf* |  | 6  7 |
| PpCREB\*CEBP |  | 8 |
| PCEBP |  | 9 |
| W |  | 10 |
| sensitivity |  | 11 |

|  |  |
| --- | --- |
| **Parameter name** | **Value** |
| *kfB* | 21 mM/s |
| *kdBDNF* | 2 x 10-3 mM/s |
| *Ktrans* | 1 mM |
| *KdB* | 0.6 mM |
| *kbasalp\_creb* | 8 x 10-7 s-1 |
| *kdphos\_creb* | 2.4 x 10-5 s-1 |
| *kphos\_creb* | 5.92 x 10-3 s-1 |
| *Kp\_BDNF* | 5 mM |
| *CREBtotal* | 0.085 mM |
| *kbasal\_cebp* | 1.58 x 10-5 s-1 |
| *kf\_cebp* | 3.1 x 10-1 s-1 |
| *kd\_cebp* | 5.65 x 10-6 mM/s |
| *Ka\_CEBP* | 2.24 mM |
| *CEBPmax* | 2.28 x 10-1 mM |
| *Kcebp* | 7.6 x 10-2 mM |
| *kf\_cebp\_basal* | 8.9 x 10-6 s-1 |
| *kminb* | 7.8 x 10-8 mM/s |
| *kf\_bdnf* | 7.26 x 10-6 mM/s |
| *kf\_bdnf\_basal* | 5.74 x 10-3 mM/s |
| *kdegb* | 2.26 x 10-5 mM/s |
| *Kdb* | 0.6 mM |
| *Ka\_bdnf* | 1 mM |
| *kbasalpath1* | 4 x 10-4 mM/s |
| *kaPcreb* | 1.2 mM/s |
| *kdPcreb* | 4 x 10-6 s-1 |
| *[pCREB]basal* | 6.6 x 10-3 mM |
| *[CEBP]basal* | 7.6 x 10-2 mM |
| *Kdown\_CEBP1* | 2.28 x 10-1 mM |
| *Kdown\_CEBP2* | 2.28 x 10-1 mM |
| *Kdown\_CREB* | 1.98 x 10-1 mM |
| *KpCREB\*CEBP* | 150 mM |
| *kbasalpath2* | 1 x 10-5 mM/s |
| *kaCEBP* | 3.2 x 10-2 mM/s |
| *kdcebp* | 1 x 10-7 s-1 |
| *KPCEBP* | 150 mM |
| *kaw* | 1 x 10-5 mM-1s-1 |
| *kdw* | 2 x 10-5 mM-1s-1 |