Supplementary Table 1. CellProfiler 5hmC feature extraction parameters in single nucleus

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| Count\_hmC\_cluster |
| Mean\_hmC\_cluster\_AreaShape\_Area |
| Mean\_hmC\_cluster\_AreaShape\_BoundingBoxArea |
| Mean\_hmC\_cluster\_AreaShape\_Compactness |
| Mean\_hmC\_cluster\_AreaShape\_Eccentricity |
| Mean\_hmC\_cluster\_AreaShape\_EquivalentDiameter |
| Mean\_hmC\_cluster\_AreaShape\_Extent |
| Mean\_hmC\_cluster\_AreaShape\_FormFactor |
| Mean\_hmC\_cluster\_AreaShape\_MajorAxisLength |
| Mean\_hmC\_cluster\_AreaShape\_MaxFeretDiameter |
| Mean\_hmC\_cluster\_AreaShape\_MaximumRadius |
| Mean\_hmC\_cluster\_AreaShape\_MeanRadius |
| Mean\_hmC\_cluster\_AreaShape\_MedianRadius |
| Mean\_hmC\_cluster\_AreaShape\_MinFeretDiameter |
| Mean\_hmC\_cluster\_AreaShape\_MinorAxisLength |
| Mean\_hmC\_cluster\_AreaShape\_Orientation |
| Mean\_hmC\_cluster\_AreaShape\_Perimeter |
| Mean\_hmC\_cluster\_AreaShape\_Solidity |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_0\_0 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_1\_1 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_2\_0 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_2\_2 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_3\_1 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_3\_3 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_4\_0 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_4\_2 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_4\_4 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_5\_1 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_5\_3 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_5\_5 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_6\_0 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_6\_2 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_6\_4 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_6\_6 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_7\_1 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_7\_3 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_7\_5 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_7\_7 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_8\_0 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_8\_2 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_8\_4 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_8\_6 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_8\_8 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_9\_1 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_9\_3 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_9\_5 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_9\_7 |
| Mean\_hmC\_cluster\_AreaShape\_Zernike\_9\_9 |
| Mean\_hmC\_cluster\_Intensity\_IntegratedIntensityEdge |
| Mean\_hmC\_cluster\_Intensity\_IntegratedIntensity |
| Mean\_hmC\_cluster\_Intensity\_LowerQuartileIntensity |
| Mean\_hmC\_cluster\_Intensity\_MADIntensity |
| Mean\_hmC\_cluster\_Intensity\_MassDisplacement |
| Mean\_hmC\_cluster\_Intensity\_MaxIntensityEdge |
| Mean\_hmC\_cluster\_Intensity\_MaxIntensity |
| Mean\_hmC\_cluster\_Intensity\_MeanIntensityEdge |
| Mean\_hmC\_cluster\_Intensity\_MeanIntensity |
| Mean\_hmC\_cluster\_Intensity\_MedianIntensity |
| Mean\_hmC\_cluster\_Intensity\_MinIntensityEdge |
| Mean\_hmC\_cluster\_Intensity\_MinIntensity |
| Mean\_hmC\_cluster\_Intensity\_StdIntensityEdge |
| Mean\_hmC\_cluster\_Intensity\_StdIntensity |
| Mean\_hmC\_cluster\_Intensity\_UpperQuartileIntensity |
| Mean\_hmC\_cluster\_Neighbors\_FirstClosestDistance |
| Mean\_hmC\_cluster\_Neighbors\_SecondClosestDistance |
| Median\_hmC\_cluster\_AreaShape\_Area |
| Median\_hmC\_cluster\_AreaShape\_BoundingBoxArea |
| Median\_hmC\_cluster\_AreaShape\_Compactness |
| Median\_hmC\_cluster\_AreaShape\_Eccentricity |
| Median\_hmC\_cluster\_AreaShape\_EquivalentDiameter |
| Median\_hmC\_cluster\_AreaShape\_Extent |
| Median\_hmC\_cluster\_AreaShape\_FormFactor |
| Median\_hmC\_cluster\_AreaShape\_MajorAxisLength |
| Median\_hmC\_cluster\_AreaShape\_MaxFeretDiameter |
| Median\_hmC\_cluster\_AreaShape\_MaximumRadius |
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| Median\_hmC\_cluster\_AreaShape\_MinorAxisLength |
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| Median\_hmC\_cluster\_AreaShape\_Perimeter |
| Median\_hmC\_cluster\_AreaShape\_Solidity |
| Median\_hmC\_cluster\_AreaShape\_Zernike\_0\_0 |
| Median\_hmC\_cluster\_AreaShape\_Zernike\_1\_1 |
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| Median\_hmC\_cluster\_AreaShape\_Zernike\_3\_1 |
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| Median\_hmC\_cluster\_AreaShape\_Zernike\_4\_4 |
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| Median\_hmC\_cluster\_AreaShape\_Zernike\_5\_3 |
| Median\_hmC\_cluster\_AreaShape\_Zernike\_5\_5 |
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| Median\_hmC\_cluster\_AreaShape\_Zernike\_9\_7 |
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| Median\_hmC\_cluster\_Intensity\_IntegratedIntensityEdge |
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| Median\_hmC\_cluster\_Intensity\_LowerQuartileIntensity |
| Median\_hmC\_cluster\_Intensity\_MADIntensity |
| Median\_hmC\_cluster\_Intensity\_MassDisplacement |
| Median\_hmC\_cluster\_Intensity\_MaxIntensityEdge |
| Median\_hmC\_cluster\_Intensity\_MaxIntensity |
| Median\_hmC\_cluster\_Intensity\_MeanIntensityEdge |
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| Median\_hmC\_cluster\_Intensity\_MedianIntensity |
| Median\_hmC\_cluster\_Intensity\_MinIntensityEdge |
| Median\_hmC\_cluster\_Intensity\_MinIntensity |
| Median\_hmC\_cluster\_Intensity\_StdIntensityEdge |
| Median\_hmC\_cluster\_Intensity\_StdIntensity |
| Median\_hmC\_cluster\_Intensity\_UpperQuartileIntensity |
| Median\_hmC\_cluster\_Neighbors\_FirstClosestDistance |
| Median\_hmC\_cluster\_Neighbors\_SecondClosestDistance |
| StDev\_hmC\_cluster\_AreaShape\_Area |
| StDev\_hmC\_cluster\_AreaShape\_Compactness |
| StDev\_hmC\_cluster\_AreaShape\_Eccentricity |
| StDev\_hmC\_cluster\_AreaShape\_EquivalentDiameter |
| StDev\_hmC\_cluster\_AreaShape\_Extent |
| StDev\_hmC\_cluster\_AreaShape\_FormFactor |
| StDev\_hmC\_cluster\_AreaShape\_MajorAxisLength |
| StDev\_hmC\_cluster\_AreaShape\_MaxFeretDiameter |
| StDev\_hmC\_cluster\_AreaShape\_MaximumRadius |
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| StDev\_hmC\_cluster\_AreaShape\_Perimeter |
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| StDev\_hmC\_cluster\_AreaShape\_Zernike\_0\_0 |
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| StDev\_hmC\_cluster\_Neighbors\_SecondClosestDistance |