**Table 1 -** Characteristics of the main Nucleoid-Associated Proteins in *E. coli*.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **NAP** | **H-NS** | | **HU** | **Lrp** | **IHF** | **Fis** | **Hfq** |
| **Molecular weight** | 15.5 kDa | | 9 kDa | 18 kDa | 11 kDa | 11 kDa | 11 kDa |
| **Oligomeric state** | Homodimer | | Heterodimer (Huαβ)/  Homodimer (Huαα  and Huββ) | Homodimer/  Octamers/  Hexadecamers | Heterodimer  (subunits IhfA  and IhfB) | Homodimer | Homohexamer |
| **Sequence**  **specificity** | Non specific  AT-rich regions  Curved DNA | | Non specific  High affinity  for damaged DNA | Non specific | Specific to the DNA structure | Specific to a 15-pb  consensus sequence (GnnYAnnnnTRnnC,  where Y is T or C and R is A or G) | Curved DNA in a non-sequence-specific-manner  A-tracts  AT-rich regions: (A/T)T(A/G)TGCCG  ssDNA  G-quadruplex |
| **DNA-binding**  **mode** | Bridging *via* linear filaments and crossed-bridged filaments | | Bending | Bending | Bending | Bending | Bridging *via*  amyloid-like fibrillar structures |
| **Abundance**  **(monomers/**  **cell)** | **Exp.**  **phase** | 20,000 | 30,000 –  50,000 | 2,500 | 12,000 | > 60,000 | 55,000 |
| **Stat.**  **phase** | 12,000 | 16,000 | 1,200 –  1,300 | 55,000 | < 100 | 110,000 |
| **Detailed**  **review** |  | Grainger,  2016 | Stojkova et al.,  2019 | Ziegler and  Freddolino, 2021 | Amemiya et al., 2021 | Amemiya et al.,  2021 | Amemiya et al.,  2021 |